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Inducing alignment the dynamic impact of repression and mobilizing structures on population support

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THESIS

INDUCING ALIGNMENT: THE DYNAMIC IMPACT OF REPRESSION AND MOBILIZING STRUCTURES ON POPULATION SUPPORT

by

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December 2009

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This thesis provides an alternative to the surge theory as a basis for understanding the dramatic change in the security situation in Anbar, Iraq. Typological theory is used to develop a conceptual framework of strategic interaction that explains how different combinations of government and insurgent repression types lead to the alignment of the affected population. Process tracing is used to test our hypotheses of population alignment, to make inferences about how the population reacted to the repression tactics of the government and the insurgent, and ultimately, to construct an explanation for the defeat of AQI through the alignment of the tribal population in the Anbar province of Iraq. Game theory compliments process tracing by verifying the internal logic of the typology and observations. In addition, the development of an agent-based model (ABM) verifies the internal logic and extends the external validity of the author's substantive theory. The model replicates and reproduces the dynamic history of mechanisms and processes by manipulating the parameters that alter the affects of the interaction of repression tactics on population alignment. Then, theoretical predictions are tested against observations from the case study of the Anbar Awakening to assess the degree of congruence between the projections of the conceptual framework and the longitudinal variation of observations. The docking procedure of this research design confirms the utility of channeling for the counterinsurgent against insurgent coercion. However, the findings suggest that this dynamic is heavily dependent on intermediating mechanisms, such as the insurgent's social embeddedness and the population's incentive structures. Lastly, the feasibility and potential areas of applications for the models is provided.

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ABSTRACT

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LIST OF ACRONYMS AND ABBREVIATIONS

A	Aligned
ABM	Agent-based model
AQ	Al Qaeda
AQI	Al Qaeda in Iraq
C	Coercion
CA	Civil Affairs
Ch	Channeling
CF	Coalition forces
CI	Counter insurgent
CMO	Civil military operations
CMOC	Civil military operations center
COIN	Counter insurgency
CPA	Coalition Provisional Authority
DV	Dependant variable
ERV	Euphrates River Valley
F	Fragment
FOB	Forward operating base
G, GOV	Govt, Government
GOI/US	Government of Iraq and United States
I	INS Insurgent
ISI	Islamic State of Iraq
ISF	Iraqi Security Forces
IV	Independent variable
LOO	Line of operation
MARDIV	Marine division
MEF	Marine expeditionary force
MS	Mobilizing structure
MSC	Mujahideen Shura Council
NGO	Non-governmental organization

PXCOR	Patch x-coordinate
PYCOR	Patch y-coordinate
QJBR	Qaidat al-Jihad fi Bilad al-Rafidayn
SIGACT	Significant activity
SOF	Special Operation Forces

I. INTRODUCTION

The guerrilla must move amongst the people as a fish swims in the sea –Mao Tse-tung[1]

A. BACKGROUND

The attacks of September 11, 2001, resulted in the United States (U.S.) declaring war on terror. The U.S. military, fashioned based on Cold War requirements, has seen extensive action from Asia through northern Africa in Operations Iraqi Freedom and Enduring Freedom. In Iraq and Afghanistan, the U.S. military quickly defeated their targeted regimes. However, they found themselves in the precarious position of trying to establish political stability and security. A regime's organized forces are easily defeated through the direct application of combat power, but winning stability and security requires an indirect, population centric strategy.

In Iraq, the U.S. has been very successful disrupting and displacing Al Qaeda in Iraq (AQI). Anbar once qualified as Iraq's most restive and violent province. Only Baghdad eclipsed it in the number of attacks on Coalition and Government of Iraq (GOI) forces, but the resulting death toll from those attacks was highest in Anbar, accounting for one third of all Coalition casualties[2] (Peter, 2008). Soldiers and Marines dubbed it the 'Wild West,' likening its western geographic orientation, tribal society, rampant lawlessness, violence, and conspicuous absence of governance to the western territories of the U.S. of the 19th century.

The chief of intelligence for the 1st Marine Expeditionary Force Headquarters (1st MEF), which was the headquarters responsible for

[1] The quote is taken from The Chinese People's Liberation Army at 75 by Burkitt, Scobell, & Wortzel.

[2] As of January 2008, 3,872 U.S. soldiers had been killed in Iraq. Therefore, the resulting U.S. deaths in Anbar would be 1,278.

administering Coalition Forces (CF) in western Iraq, filed an intelligence report in the fall of 2006 that concluded, “the prospects for securing that country's western Anbar province are dim and that there is almost nothing the U.S. military can do to improve the political and social situation there,” according to Washington Times writer, Thomas E. Ricks (2006). Subsequent events dramatically altered the province that once was the heart of both the Sunni resistance and Al Qaida in Iraq (AQI). Now, to quote correspondent Tom A. Peter, “Anbar has emerged as the symbol of a turnaround as Sunni sheikhs formed ‘Awakening Councils,’ ousted Al Qaeda, and created community police forces. Anbar is the 11th of Iraq's 18 provinces to return to Iraqi control, but it is the first predominately Sunni province handed over” (2008). The strategy developed working with the Anbar tribes would later be exported to other areas of Iraq as the Sons of Iraq and Local Concerned Citizens.

The transformation of Anbar has hence been hailed an extraordinary triumph for the Coalition. Therefore, the question remains, why and how did the awakening in Anbar take place? Many argue that this process was a direct result of the surge of U.S. troops into Iraq. The surge may have played a role, but the true success lies in understanding the dynamics that affect how individuals and groups make decisions to resist.

B. PURPOSE AND SCOPE

The U.S. Department of Defense's Irregular Warfare Joint Operating Concept defines irregular warfare as “a violent struggle among state and non-state actors for legitimacy and influence over the relevant population(s). Irregular warfare favors indirect and asymmetric approaches, though it may employ the full range of military and other capacities, in order to erode an adversary’s power, influence, and will” (2007, p. 6). Counterinsurgency (COIN) is a subset of irregular warfare and the U.S. Counterinsurgency guide states “COIN is a complex effort that integrates the full range of civilian and military agencies. It is

often more population-centric (focused on securing and controlling a given population or populations) than enemy-centric (focused on defeating a particular enemy group)" (2009, p. 12).

Many lessons have been learned in the years of conflict since 2001 and they are now being captured in the U.S. Government doctrinal publications. The population is the center of gravity in a government and insurgent conflict and the prescribed tactics are indirect and population centric. What is the indirect approach and how it is to be implemented in a population-centric strategy? The substance of an indirect approach/ population-centric strategy is required for troops to operationalize and implement strategy at the tactical level. As the situation grays, troops and commanders will gravitate to areas of clarity, traditional roles of conventional military operations. To get away from potentially counterproductive actions to control the population, it is necessary to make the indirect approach clear. The authors intend to formulate a theoretical framework to assist commanders as they develop their intent and operational concepts of an indirect approach to win population alignment.

The purpose of this thesis is to study the conflict between a government and insurgency where the primary concern is not defeating the enemy, but to win the supporting population. The question this thesis attempts to answer is what are the strategic dynamics between the government and insurgent repression tactics and the relevant population's alignment. The authors utilize various components of social movement theory and the research focuses on repression typology, strategic interaction of government and insurgent repression tactics, and the mechanisms and processes that account for the deviation in population alignment.

C. METHODOLOGY

Typology theory supports the development of a theoretic framework that explains how the government and insurgent repression strategies interact resulting in the alignment of the affected population. Process tracing is used to

test the proposed hypotheses of population alignment, to make inferences about how the population reacted to the repression tactics of the government and the insurgent, and ultimately, to construct an explanation for the defeat of AQI though the alignment of the tribal population in the Anbar province of Iraq. Process tracing within a case study longitudinally explains deviation in population alignment, but has weaknesses. It lacks the corroboration potential of multiple case studies and requires estimating the causal effects of the variables. Game theory compliments process tracing by verifying the internal logic of the typology and observations. Agent-based modeling (ABM) mitigates the lack of external validity inherent in single case studies by verifying the internal logic of the substantive theory analytically. The ABM overcomes the stylized nature of game theory by not focusing exclusively on equilibrium. ABM captures the dynamical history of the mechanisms and processes by manipulating the parameters that alter the affects of the interaction of repression tactics on population alignment. The modeled predictions are tested against observations from the case study of the Anbar Awakening to assess the degree of congruence between the modeled projections of the conceptual framework and the longitudinal variation of the observations.

D. CHAPTER REVIEW

Chapter II examines repression strategies used to control populations under the rubric of social movement theory. The majority of the supporting literature is does not directly address insurgent violence. The literature explains the relationship between government repression and movement dynamics. We build off the literature by making the insurgent a repressive actor and attempt to understand how the interaction of each side's repression strategy results in population alignment. Chapter III uses the theoretic concept developed in Chapter II to deconstruct the Anbar Awakening case study by process tracing the events resulting in the Anbar tribes shifting allegiance from AQI to GOI/US. In Chapter IV, game theoretic modeling verifies the internal logic of the theoretical concept analytically and mitigates the lack of inherent external validity of a single

case study. Chapter V tests for congruence between the theoretic concept and the empirics of the case study. The results are the limitations, feasibility, and potential area(s) of application for the findings.

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II. TYPOLOGY THEORY

> Movements may occur in broad macro context, but their actual development clearly depends on a series of more specific dynamics operating at the micro level.[3] (McAdam, McCarthy, & Zald, 1996)

A. INTRODUCTION

The purpose of this chapter is to construct a theoretical framework for the analysis of conflict between a government and insurgency where the primary concern is not defeating the enemy, but to win the support of the population. The question this thesis attempts to answer is what are the processes and factors that affect population alignment in support of the government or insurgent. To answer this question, the authors focus the research on three areas of interest: the strategic interaction model, the intervening mechanisms and processes, and the resulting population alignment. The strategic interaction model begins with a typology of repression and concludes with the model that depicts the spatial relationship created between the government, insurgents, and population resulting from the interaction of each side's repression tactics. The mechanisms and processes explain the incentives to protest, how they create micromobilization, the framing processes, and finally introduce the intervening variables of mobilizing structures and transformative events. The mechanisms and processes explain the spatial relationships and resulting population alignment of the strategic interaction model. Lastly, the results are supported with a match-up typology created from an analysis of the government and insurgent architectures of power.

First, the formulation is begun by explaining the relationship between repression and mobilization. Charles Tilley provides three potential relationships between repression and mobilization:

[3] The quote is taken from the 1990 article Repression, Micromobilization, and Political Protest by Opp and Roehl.

> (1) that they are locally variable, irregular, or even incoherent, and therefore not amenable to systematic description and explanation. (2) that, once we clear away the conceptual and empirical debris, they conform to general laws. (3) that they apply names to classes of episodes for which coherent explanation are possible—but not in the form of general laws at the levels of episodes or classes of episodes.[4] (Davenport, Johnson, & Muellller, 2005, pp. 211–212)

Like Tilly, the mechanisms[5] and processes[6] are examined to explain the relationship between repression and mobilization[7] as in Tilly's item three because of the inherently complex and locally diverse nature of an insurgency. In other words, the nature of an insurgency often defies the logic of general laws. Using Tilly's definition, an example of an episode is the Sunni insurgency in Iraq. Like Tilly, common properties, transformed into general laws for understanding insurgencies (episodes) are not the pursuit of this study. Tilly contends that:

> Similar mechanisms and processes appear at the small scale in revolutions, strikes, ethnic conflicts, social movements, and many other contentious episodes, but the their varying combinations, sequences, and initial conditions cause dramatically different processes and outcomes at the large scale. Explanations of whole episodes therefore passes through five steps: (1) identification of the episodes' problematic and distinctive features; (2) comparison with other episodes for similar features and differences in those regards; (3) identification of processes that produce those problematic and distinctive features; (4) decomposition of those processes into component mechanisms; (5) development of accounts concerning how relevant mechanisms combine, interact, and produce their aggregate effects given their specific initial conditions. (Davenport, Johnson, & Muellller, 2005, p. 213)

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[4] Episodes are continuous streams of contention including collective claim making that bears on other parties' interest (Davenport, Johnson, & Mueller, 2005, p. 212).

[5] Mechanisms are a delimited class of events that alter relations among specified sets of elements in identical or closely similar ways over a variety of situations (Davenport, Johnson, & Mueller, 2005, p. 212).

[6] Processes are regular sequences and combinations of such mechanisms that produce similar transformations of those elements (Davenport, Johnson, & Mueller, 2005, p. 212).

[7] Mobilization is collective direction of pooled resources to shared interests (Davenport, Johnson, & Muellller, 2005, p. 213).

The coherent explanations apply to diverse classes of episodes. Using Tilly's five-step process, it allows for a detailed analysis of an insurgency (episode), from a theoretical framework applicable in other COIN environments.

B. STRATEGIC INTERACTION

1. Repression Typology

What is repression? Earl provides a theoretical framework for repression typology. In her research, she uses the 1978 Tilly definition of repression as, "any action by another group which raises the contenders cost of collective action" (Tilly, 1978; Earl, 2003). Earl (2003) identifies the importance of repression in social movements and identified two primary lines of research: (1) research that casts repression as the dependent variable; and (2) research that casts repression as the independent variable in the explanations of such things as movement mobilization and tactical adoption. Earl's research focuses on using repression as a dependant variable and explaining why repression occurs.[8] She identifies a typology of repression to explain the various forms of repression. Earl's repression typology addresses the three key dimensions of repression characterized as the identity of the repressive agent, the character of the repressive action, and whether the repressive action is observable (2003, pp. 47–48). Her typology presents 12 possible combinations of the dimensions. Table 1 depicts the manipulation of Earl's typology into eight cells by combining the dimensions of identity of repressive agent, directness, and visibility. She addresses the identity of repressive agents utilizing three categories: national level, local level, and private agents. For purposes of this study, the national and local level authorities are grouped into sanctioned[9] and the private agents into

[8] Although Earl's repression typology explains why repression occurs, her typology is useful in explaining how repression affects population alignment. The focus of this study is counterinsurgency, in that political environment repression is a tool used to influence behavior.

[9] Sanctioned repression is conducted by any government entity (military) and unsanctioned repression is conducted by private citizens, groups, and/or other third parties (tribes) with indirect affiliation to the government. However, the insurgents can conduct sanctioned repression through formally recognized insurgent channels and unsanctioned repression through private citizens, groups, and/or informal associated third parties.

unsanctioned under the category of identity of repressive agent. The second dimension she examines is the character of repression, which the authors categorize as directness of repression. Directness of repression provides two models of repression, coercion and channeling. Earl states coercive repression involves shows and/or uses of force and other forms of police and military action (2003, p. 48). Earl further explains coercion as being either covert[10] and overt.[11] Channeling involves repression that is more indirect, affecting the forms of protest available, the timing of protest, and/or flow of resources to movements (Earl, 2003, p. 48).[12] Additionally, channeling involves directing repression against the organizational capacity to mobilize. Her third dimension of repression is whether the repressive action is observable; categorized as visibility, either observable or unobservable. Earl further explains channeling as either manifest (readily observable to the public) or latent (intention unknown to general public). The authors simplify visibility to observable and unobservable. Observable repression means the actions and intentions are obvious to the public. Unobservable repression means the actions and/or intentions are to be unknown to the public. The result of Earl's work provides a theoretical framework for the typology of repression and standard definitions for use to explain the mechanisms and processes resulting in population alignment. Table 1 is a manipulation of Earl's typology and provides examples of repression tactics by combining the dimensions of repression.[13]

[10] The agents of repression, their actions, and the purpose of their actions intended to be unknown to the public.

[11] Repression intended to be obvious to both the protestors and the wider publics.

[12] Rasler's study of the Iranian Revolution explains that government concessions/accommodations encourage more protest because dissidents perceive that the prospects for successful collective action are better than they have been in the past and that the costs of collective action are more acceptable (1996). Channeling and accommodation both attempt to weaken the opposition and the acts are similar, but differentiated based on both sides architecture of power. Channeling is negotiation from a position of power (real or perceived). The authors contend that channeling has a negative effect on mobilization. Concessions are made negotiating from position of weakness (real or perceived) and can signal the opposition's vulnerability.

[13] Table 1 is not an exhaustive list of examples. The table provides examples in the context of Operation Iraqi Freedom in the Al Anbar Province.

Repression Typology			
		Observed	Unobserved
Sanctioned	Coercion	Arrest & Prosecution for insurgent activities	Intelligence gathering/ surveillance to ID insurgent activities
	Channeling	Tribal engagement initiatives	Eliminate De-Bathification practices
Unsanctioned	Coercion	Tribal security forces targeting AQI	Allowing Shia Militias to target the Sunni population
	Channeling	Directing financial support to moderate Sunni tribal leaders	Tribal leaders require tribal members to resolve grievances through existing tribal system

Table 1. Repression Typology

2. Strategic Interaction Model

The strategic interaction model is a 2 x 2 graphic depiction of the spatial relationship between the population, government, and insurgency created by the interaction of the government and insurgent repression tactics (Figure 1).[14] The model was derived from Dr. Gordon McCormick's Diamond Model, Seminar in Guerilla Warfare (2008). The other dimensions, identity of repressive agent and visibility, work as the processes and mechanisms of the core model.[15] As stated before, an insurgency does not conform to general laws; therefore, section three addresses *why* the spatial relationship exists. The strategic interaction model provides four possible outcomes.

[14] The strategic interaction model generalizes the tactics used in each of the four scenarios. For example, in type one, both the government and insurgent use coercion. However, each side may be using channeling as well, but the preponderance of the tactics is coercive.

[15] The incentives to protest (mechanisms and processes) capture the identity of the repressive agent and visibility of action.

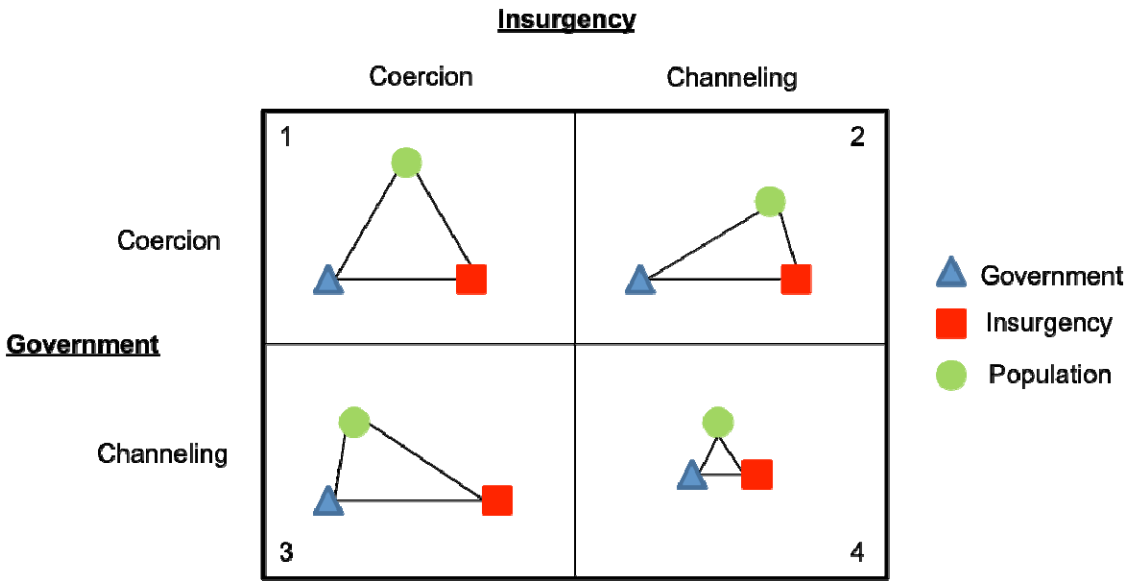

Figure 1. Strategic Interaction Model (McCormick, 2008).

The population perceives the government and insurgent repression tactics as coercive in Type 1. The illustration depicts the spatial relationship between the population, government, and the insurgency as equal. Therefore, population alignment with either side is unlikely or weak. Type 2 represents the conditions where the government remains coercive while the insurgency is channeling. This illustration depicts the population aligning with the insurgency. Type 3 represents the government utilizing channeling and the insurgency relying on coercive tactics. This results in the population aligning with the government. Type 4 represents both sides utilizing channeling tactics. Type 4 represents a competition in resources. The assumption is that in a COIN environment the government has a resource advantage; therefore, the population is shown closer aligned with the government.

C. MECHANISMS AND PROCESSES

The strategic interaction model depicts the spatial relationship between the population, government, and insurgency created by the interaction of repression tactics (McCormick, 2008). Repression has either a positive or a negative effect on mobilization and that effect is manifest in population alignment

with either the government or the insurgency. Opp and Roehl specify the processes on the micro level that explain the relationships between repression and protest on the macro level (1990).[16] To determine the effect that repression has on the individual decision to take part in social movement activities requires analyzing three incentives to protest: social, moral, and public good (Opp & Roehl, 1990). Opp and Roehl use the three types of incentives to explain the indirect effects of repression set off by repressive acts by legal authorities.[17] Additionally, the intervening variables of transformative events[18] and mobilizing structures are factored in to determine how they enhance or mitigate the incentive structures. The mechanisms and processes manipulate population alignment. The bridge between repression typology and the incentives structures is legitimacy.

> Micromobilization processes are more likely to occur the more repression is considered illegitimate, i.e., as unjust or unjustified. [Opp and Roehl] further assume that repression is judged as highly illegitimate if it is directed against legal protest action, which implies the [incentive structures will mobilize against the repressor] more often (or, for informal negative sanctions, less often) if persons are involved in legal actions before experiencing repression. (Opp & Roehl, 1990, p. 526)

1. Incentives to Protest

"Movements may occur in the broad macro context but their actual development clearly depends on a series of more specific dynamics operating at the micro level"[19] (Opp & Roehl, 1990, p. 522). Micromobilization[20] refers to the

[16] Mobilization is collective direction of pooled resources to shared interests (Davenport, Johnson, & Muellller, 2005, p. 213). Therefore, micromobilization is the individual direction of resources to shared interests.

[17] Opp and Roehl's thesis examines the effects of repressive acts by legal authorities; however, the strategic interaction model accounts for repression tactics of both the government and insurgency. The repressive acts of the insurgency affect the same incentive structures of the population.

[18] A transformative event is a crucial turning point for a social movement that dramatically increases or decreases the level of mobilization (Hess & Martin, 2006, p. 249). Francisco refers to transformative events as focal events (2005).

[19] Opp and Roehl identify processes on the micro level that can explain relationships between repression and protest at the macro level (1990).

decision to mobilize at the individual level. An individual's decisions are subject to scrutiny from their social environment. Social incentives are the expectations of the individual to the positive and negative sanctions of their social environment (Opp & Roehl, 1990, p. 524). If the population perceives repression as legitimate, then the social environment is likely to increase negative sanctions weakening the ties between the insurgents and the population (sanctioned versus unsanctioned). Conversely, if the population views the repression as illegitimate, the social environment will increase positive incentives strengthening the ties between the insurgents and the population. Coercion or channeling is not determined to be legitimate or illegitimate based on the act alone. The perception of the person subjected to the repressive act ultimately determines its relative legitimacy. The dimensions of visibility and identity of the repressive actor influence the perception of repressive acts. If the repressive actor is unsanctioned and/or the repressive act is unobserved, it increases the likelihood that the repression is illegitimate when linked to the repressor. When the repressor is trying to explain away the association, unsanctioned or unobserved repression, they are subject to the opponents' injustice frame. Opp and Roehl assume that, "micromobilization processes are set off in particular for persons who have been exposed to repression that they and their social environment (social incentives) regard as illegitimate *and* who are integrated into protest encouraging groups"[21] (1990, p. 526).

Protest encouraging groups utilize positive and negative sanctions and the framing processes to encourage and justify protest. This refers to Opp and Roehl's moral incentives in which an individual's obligation to protest is based on

[20] McAdam defines the micromobilization context as a small group setting in which processes of collective attribution are combined with rudimentary forms of organization to produce mobilization for collective action (1988; Rasler, 1996, p. 133).

[21] Numerous empirical studies have shown that integration into groups supporting the goals of a movement is positively related to group members' protest activities (see, e.g., Oberschall, 1973; Opp, 1999; Snow et al. 1980; Useen, 1980; Opp & Roehl, 1990).

protest norms and norms of violence[22] (1990, p. 524). Legitimate repression reduces the moral incentives of an individual to act on behalf of the insurgents. "Acting in accordance with norms or justification of protest is associated with good conscience, whereas inaction leads to bad conscience" (Opp & Roehl, 1990, p. 524). Conversely, protest-discouraging groups utilized the same processes to discourage protest. Closely tied to moral incentives are public goods incentives. Public goods incentives include system alienation[23] and perceived influence by legal and illegal political action. Protest-encouraging groups influence the moral and public goods incentives by way of the framing processes.

Snow, Vliegenthart, and Corrigall-Brown's core framing tasks capture Opp and Roehl's moral and public goods incentives by way of the diagnostic,[24] prognostic,[25] and motivational frames.[26] Diagnostic frames appeal to the public goods incentives by increasing system alienation. For example, an insurgency frames the problem as lack of political access, placing the blame directly on the government. This assists in strengthening system alienation and the need for an alternative political order. System alienation builds on the prognostic frames by detailing the solution and/or plan of action by developing an insurgent movement

[22] Specifically, protest norms refers to the extent that a person should participate in protest generally and norms of violence denotes the extent to which a person considers violent protest justified (Opp & Roehl, 1990, p. 524).

[23] System alienation means that the political order is regarded as a public evil, that repression raises the process for an alternative political order that is regarded as public good (Opp & Roehl, 1990, p. 524). The alternative political order created by the insurgency can alienate the population.

[24] A diagnostic frame entails a diagnosis of some event or aspect of life as troublesome and in need of change, and the attribution of blame for the problem. The diagnostic frame identifies what the problem is and who is to blame. The function of the diagnostic frame is recruitment and socialization.

[25] Prognostic framing involves the articulation of a solution to the problem, including a plan of attack and frame-consistent tactics for executing it. The prognostic frame provides a solution and course of action while maintaining frame consistency. Prognostic frames assist with movement development and participation (Snow, Vliegenthart, & Corrigall-Brown, 2007, p. 387).

[26] Motivational framing addresses the "free rider" problem by articulating the rationale(s) for engaging in corrective activity (Snow & Benford, 1988; Snow, Vliegenthart, & Corrigall-Brown, 2007, p. 387). Motivational frames build on prognostic frames by providing for action and overcoming the fear of risk associated with collective action.

to topple the regime. The prognostic frame capitalizes on the system alienation created by the diagnostic frame; thus, increasing moral incentives of obligation to protest. The motivational frame creates the need for action by appealing to the collective good (public goods) and justifies the action through protest norms and norms of violence (moral incentives). Additionally, this overcomes the individual risk associated with the solution provided by the prognostic frame. The interpretive frame manipulates perception through application of the core framing tasks to achieve frame alignment.[27]

Frame alignment is the conceptual bridge that links social psychological and structural/organizational on movement participation that consists of: (a) frame bridging,[28] (b) frame amplification,[29] (c) frame extension,[30] and (d) frame transformation[31] (Snow, Rochford, Worden, & Benford, 1986, p. 464). Frame alignment incorporates the core framing tasks and adjusts the interpretive frame

[27] Frame alignment refers to the linkage of individual and SMO interpretive orientations, such that some set of individual interests, values and beliefs and SMO activities, goals, and ideology are congruent and complimentary (Snow, Rochford, Worden, & Benford, 1986, p. 464).

[28] Frame bridging refers to the linkage of two or more ideologically congruent but structurally unconnected frames regarding a particular issue or problem (Snow, Rochford, Worden, & Benford, 1986, p. 467). The bridging process attempts to align the ideological frames of two or more groups through the diagnostic and prognostic frames by identifying a common problem and/or who is to blame and/or solution.

[29] Frame amplification refers to the clarification and invigoration of an interpretive frame that bears on a particular issue, problem or set of events (Snow, Rochford, Worden, & Benford, 1986, p. 469). Frame amplification is used when the interpretive frame has failed to motivate collective action (motivational frame). Amplification is used to clarify or invigorate the values and/or beliefs that support or impede action in pursuit of the desired endstate (Snow, Rochford, Worden, & Benford, 1986, p. 469).

[30] Frame extension is the extension of the SMO boundaries of its primary framework to encompass interests or points of view considered incidental to its primary objectives but of considerable salience to potential adherents (Snow, Rochford, Worden, & Benford, 1986, p. 472). Frame extension is much like frame bridging in that it is trying to encompass groups based on congruence. However, frame extension is attempting to align two or more groups through the diagnostic and prognostic frames by identifying a common problem and/or who is to blame and/or solution based on values and interest; whereas, frame bridging aligns on ideology.

[31] Frame transformation "redefines activities, events, and biographies that are already meaningful from the standpoint of some primary framework, in terms of another framework, such that they are now seen by the participants as something else" (Snow, Rochford, Worden, & Beford, 1986, p. 464). When the interpretive frame is failing to yield the intended results, "new values may have to be planted and nurtured, old meanings or understandings jettisoned, and erroneous beliefs or "misframings" reframed (Goffman, 1974, p. 308) to garner support and secure participants" (Snow, Rochford, Worden, & Benford, 1986, p. 473). Frame transformation allows for changes in any/all of the core framing tasks.

to achieve alignment. Alignment increases the probability that the incentives to protest will result in micromobilization by increasing the size of the group, through frame bridging and extension, and how well the frame resonates (frame amplification and transformation). When groups frame align, they are subject to the social incentives of the new, larger social environment increasing the likelihood of micromobilization through positive and negative sanctions. Frame alignment increases the individual obligation to protest (moral incentive) by manipulating the interpretive frame to compel a person to protest and to justify protest activity. Lastly, frame alignment increases the public goods incentives through frame amplification and transformation by increasing system alienation and the *perceived* influence of legal and illegal political action. The framing process is dynamic and is constantly reevaluated and/or adjusted to maintain/increase frame resonance with the target population's incentive structures. The framing alignment processes link to collective action by way of cognitive liberation,[32] "If the value of collective good is combined with a high expectation of success, people are likely to participate in mass action"[33] (Rasler, 1996, p. 134).

2. Intervening Variables

a. Mobilizing Structures

Mobilizing structures are "those collective vehicles, informal as well as formal, through which people mobilize and engage in collective action" (McAdam, McCarthy, & Zald, 2008, p. 3). Mobilizing structures build organizational capacity of the insurgent organization through the

[32] The social arrangements that are ordinarily perceived as just and immutable must come to seem both unjust and mutable" before collective action is likely, a process that McAdam (1982) calls "cognitive liberation (Snow, Rochford, Worden, & Beford, 1986, p. 466).

[33] Value expectancy models assert that people will rebel if they become convinced that dissent will achieve collective good (Klandermans, 1984; Muller & Opp, 1986; Finkel, Muller, & Opp 1989; Rasler, 1996, p. 134).

micromobilization processes to create meso-level[34] groups resulting in macro-level mobilization. The authors' analysis of mobilizing structures refers to the micromobilization, connective structures, and leadership structures.[35] The following table depicts the mobilizing structures of a movement and provides examples of each.

Micromobilization	Connective Structures	Leadership	Example
Segmented	Reticulated	Centralized	Type 1 (Hamas)
		Decentralized	Type 2 (AQ Networks)
	Unreticulated	Centralized	Type 3 (Palestinian Authority)
		Decentralized	Type 4 (Civil Rights Movement)
Unsegmented	Reticulated	Centralized	Type 5 (AQ Central)
		Decentralized	Type 6 (Anarchist Model)
	Unreticulated	Centralized	Type 7 (Unions)
		Decentralized	Type 8 (Issue Specific NGOs)

Table 2. Mobilizing Structures.

To understand the effects that mobilizing structures have on the incentive structures requires a comparable discussion of the regime's architecture of power. Each side utilizes their organizational capacity to

[34] The focus is on the meso-level groups, organizations, and informal networks that comprise the collective building blocks of social movements and revolutions (McAdam, McCarthy, & Zald, 2008, p. 3).

[35] The leadership structures are either centralized or decentralized. Gerlach and Hine refer to decentralized as single leadership and the absence of card-carrying membership (Gerlach & Hine, 1970; Tarrow, 1998, p. 129). The connective structures (meso-level mobilization) are either reticulated or unreticulated. "by reticulation, they referred to a weblike connective structure "in which the cells, or nodes, are tied together, not through any central point, but rather through intersecting sets of personal relationships and other intergroup linkages" (Gerlach & Hine, 1970; Tarrow, 1998, p. 129). Micromobilization is characterized by either being segmented or unsegmented. "By segmentation, they meant that the movement "is composed of a great variety of localized groups or cells, which are essentially independent, but which can combine to form larger configurations or divide to form smaller units" (Gerlach & Hine, 1970; Tarrow, 1998, p. 129).

gain/maintain social control. The interaction of organizational capacities' is a dynamic process resulting in favorable or unfavorable matchups influencing the effects of the incentive structures.

The intervening variable of mobilizing structures enhances or mitigates the effects mechanisms and processes. The mobilizing structures increase and decrease the sanctions from the social environment due to the incentives to protest and affect the micromobilization processes. Segmented mobilizing structures, heterogeneous and socially embedded groups, increases the social incentives subject to frame alignment. For example, AQI pre-2006 (Table 2, Type 2; segmented, reticulated, and decentralized) was an umbrella group of Sunni insurgent groups that included 1920 Revolution, Baa'thists, and Ansar Al Sunna to name a few. AQI subjected the Sunni population to protest encouraging groups, which utilized positive and negative sanctions to justify violence as an accepted norm of protest and to increase alienation of the Shia dominated GOI/US. The interpretive frames created through the framing process utilized brokerage[36] to align these groups based on ideology, values, and/or beliefs. Unsegmented (homogenous groups) increase intra-group social incentives and have no effect outside the group. Homogenous groups increase social incentives by diffusion of issue specific ideology; AQ Central utilizes the ideology of Islamism to impose sanctions within the group. The connective structures either increases or decreases the social incentives. If the coordinating mechanism is unreticulated (formal), the social incentives decreases because a consensus is not required. The Palestinian Authority is unreticulated in which direction the movement flows through a hierarchy. However, if reticulated, the social incentives increase based on the personal relationships required to maintain the web-like organizational structure. Hamas differs from the Palestinian Authority in that it has web like connective structures as opposed to being hierarchical. Centrality of leadership also has differing effects on the social

[36] Brokerage refers to, "the capacity to connect sectors of a movement who hold different stances and world views" (Diani & McAdam, 2003, p. 107).

incentives. A movement with centralized leadership decreases the social incentives due to the coordinated control of organization matters. Conversely, decentralized leadership increases social incentives based on the trust and solidarity required to maintain the organization.

Moral and public goods incentives tie to connective structures and leadership through the framing process based on the requirement to coordinate and lead the movement. It is assumed that the increase/decrease of moral and public goods incentives directly relate to the difficulty the connective and leadership structures have in maintaining frame alignment. Social embeddedness increases moral and public goods incentives due to alignment (subject to framing processes) with the protest encouraging groups. Homogenous groups increase moral and public goods incentives with negligible framing requirements (like-minded people). In an unreticulated connective structure and/or centralized leadership, moral and public goods incentives increase due to the institutionalization of the framing process. In a reticulated connective structure and/or decentralized leadership group, moral and public goods incentives decrease due to the increased difficulty of maintaining frame alignment. In sum, mobilizing structures modulate the likelihood of insurgents coordinating action with the population. To conceptualize the government's organizational counterparts of mobilizing structures, Boudreau's explanation of organizational capacity through the lens of depth and breadth is examined. Additionally, the interaction of organizational capacities between the government and insurgency and the effects on population alignment is shown.

Boudreau provides a matchup process that takes into account both sides' architecture of power[37] and the government's options in a battle for control over a relevant population. He advances the argument concerning why state actors resort to repression against social challenges. He also examines the state

[37] In reference to architecture of power, it is not how much, or how far, one can project power, but rather how degrees of power projected from specific operational bases threaten the hegemonic project or ambitions of others. The structure rather than the magnitude of power is essential in understanding the competition between state and movements.

and social challenger's depth and breadth of control[38] and extends this concept to explain why a state may choose to repress or ignore a given protest. He argues that the state must achieve a balance between extending the state's reach (breadth) and maintaining control over its current constituents within society (depth) (Davenport, Johnson, & Mueller, 2008, p. 35). Breadth differs from depth as the ability to control the population with security forces in a given geographic area as opposed to the societal aspects.

Boudreau's matchup process creates a theoretical typology that accounts for each side's strengths and weaknesses and identifies the corresponding government repression strategy. Boudreau identifies two government options in dealing with social challenges; eliminate or diffuse (2008, p. 40). The authors generalize eliminate and diffuse to coercion and channeling to support the typology of repression. A matchup problem exists when the repression tactics are not consistent with the architecture of power. Table 3 demonstrates the correct matchup typology utilizing Boudreau's theoretical framework.[39]

		Insurgency			
		(+) Depth (+) Breadth	(+) Depth (-) Breadth	(-) Depth (+) Breadth	(-) Depth (-) Breadth
Government	(+) Depth (+) Breadth	Civil War	Social Movement (Channel)	Criminal Activity (Coercion)	STable Regime
	(+) Depth (-) Breadth	Failing State (Coercion)	Prolonged Conflict	Homogeneous Insurgency (Coercion)	Weak State
	(-) Depth (+) Breadth	Weak State (Channel)	Social Movement (Channel)	Social Contest	Dictatorship
	(-) Depth (-) Breadth	Popular Revolution	Vanguard Revolution	Slow Popular Movement	Chaos

Table 3. Matchup Typology.

[38] Boudreau defines breadth as the state's ability to exercise power across territory (broadly) and depth as the control over aspects of social life (deeply) (Davenport, Johnson, & Mueller, 2008, p. 35).

[39] Boudreau's theoretical framework focuses on thinking about weak, poorly, consolidated state authorities and social challenges.

The matchup typology provides hypothetical outcomes based on the matchup of government and insurgent organizational capacities. It is assumed that when depth or breadth is negative (-) for one side, it is maximum (+) for the other (zero sum).[40] The blacked out boxes represent conditions in which neither opponent has a comparative advantage. What remains in the typology are the respective conditions and the government's ideal repression strategies based on each side's architecture of power. The Al Anbar province, pre-2006, presented a matchup problem for the government. The GOI/US lacked depth and could mass security forces for breadth of control in a given area. Conversely, AQI enjoyed both depth and comparable breadth to the GOI/US. The result is a weak state (in the given area) and the need to build depth through channeling. The matchup typology supports the strategic interaction model[41] by identifying the conditions in which repression tactics are plausible and whether they can eliminate and/or diffuse an insurgency.

The matchup typology depicts the dynamic process created by comparing organizational capacities. The mobilizing structures of the insurgency have an effect on the incentive structures as previously stated. However, the effect is relative to the organizational capacity (depth and breadth) in time and space and can modulate over time. Regime depth mitigates the effects mobilizing structures have on the incentive structures. Conversely, lack of regime depth enhances the effects of the mobilizing structures for the insurgent. From 2004 to 2006, the GOI/US utilized indiscriminant coercive heavy tactics, due to a lack of depth, to control the population in Al Anbar. The GOI/US massed security forces to displace AQI in strongholds along the Euphrates River Valley (ERV). After the GOI/US withdrew, AQI returned capitalizing on enhanced support from the Sunni tribal population based on increased government alienation. The following figure illustrates the effects of organization capacity on mobilizing structures.

[40] This assumption is made to simplify the hypothesized outcomes. To the degree one side possesses depth and/or breadth, the other does not (in time and space).

[41] The strategic interaction model demonstrates how the interaction of government and insurgent repression tactics influence population alignment.

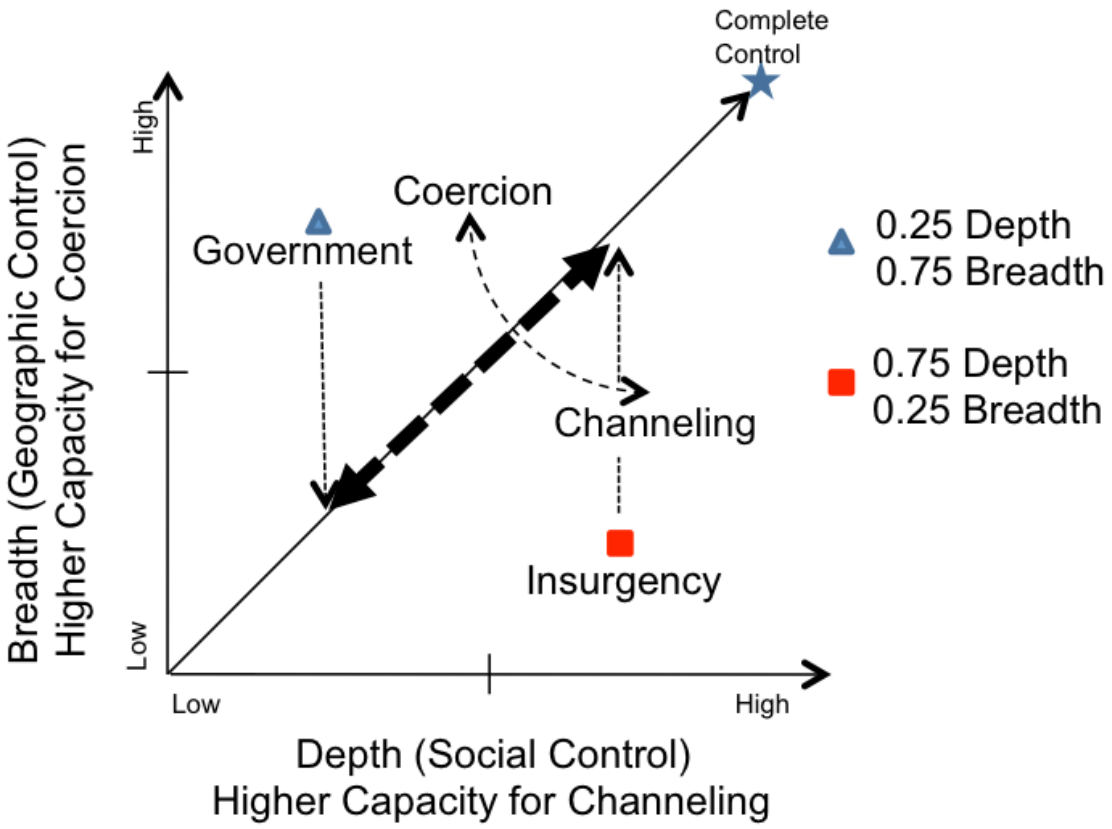

Figure 2. Comparative Advantage of Depth and Breadth.

The x and y-axis depicts the depth and breadth of control, respectively. The diagonal line is the proportional organizational capacity of Depth and Breadth (1:1). Figure 2 is a comparative example of organizational capacities. In the example, the government's organizational capacity is ¼ depth and ¾ breadth. Conversely, the insurgent's organizational capacity is characterized as ¾ depth and ¼ breadth to depict control as zero sum. The government's organizational capacity is above the proportional line, indicating a higher capacity for coercion as a means of control. However, more depth is required to achieve additional control closer to the proportional line (balanced capacity). This implies that the government must work through channeling to deepen its social control with the aim of complete control (upper right corner of

Figure 2).[42] Additionally, this illustrates the effect organizational capacity has on mobilizing structures, and thus, incentive structures. The intersection of the government and insurgent depth along the proportional line identifies a comparative advantage to the insurgency.[43] In this example, the mobilizing structures would have an enhanced effect on the incentive structures (increased mobilization for the insurgency).

The organizational capacity of the government and the insurgency support the strategic interaction model. The conflict depicted in the strategic interaction model is for control of the relevant population and not the tactics used to target the adversary; it reflects each side's tactics used to maintain population control. The government's breadth of control supports coercive repression tactics and depth supports channeling repression tactics (organizational capacity supports the repression tactics). For the insurgency, the greater access to the mobilizing structures of the population, the more likely channeling tactics achieve population control. Control of the population is constrained by organizational capacity and this capacity modulates in time and space. For example, in 2005, the Shia-led government in Baghdad, with depth of social control in southern Iraq, utilized channeling to control the Shia population. At the same time, the Shia insurgents were also utilizing channeling to control the population, supported by cell 4 of Figure 3 (competition for resources). During the same time, the GOI/US lacking depth in the Sunni Triangle was predominantly utilizing coercive tactics to control the population, while the Sunni insurgents utilized channeling to control the population, as depicted in cell 2 of Figure 3 (population alignment with the insurgency).

[42] In this example, the insurgency must increase coercive capacity (breadth) to broaden their geographic control.

[43] The bold, dashed double arrow identifies comparative advantage of social control to the insurgency. The larger the gap between the intersections on the proportional line, the larger the comparative advantage to one side.

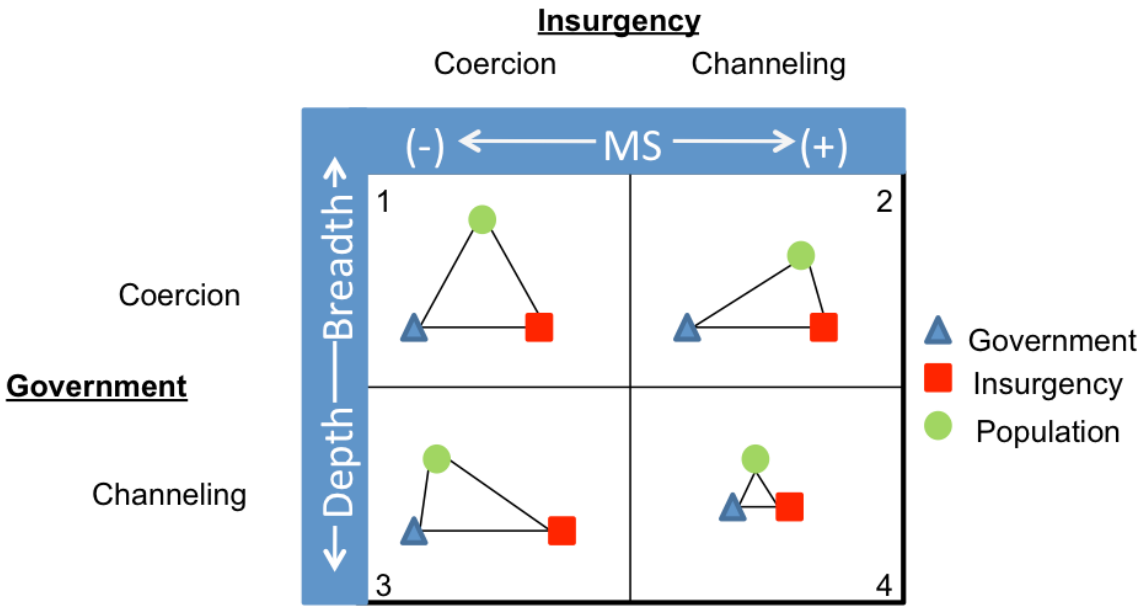

Figure 3. Strategic Interaction Model Supported by Organizational Capacity (McCormick, 2008).

b. Transformative Events

The intervening variable of transformative event is applied to the mechanisms and processes to determine if they enhance or mitigate the incentive structures. A transformative event[44] is a crucial turning point for a social movement that dramatically increases or decreases the level of mobilization (Hess & Martin, 2006, p. 249). Harsh repression and/or a transformative event negate the social incentives to mobilize; thus, increasing (decreasing) moral and public good incentives for the opposition (Francisco, 2005, p. 67). By combining Hess and Martin's and Francisco's argument, a transformative event dramatically increases or decreases the level of mobilization as explained through the moral and public goods incentive structures. A transformative event raises the moral obligation to protest when the repression is perceived as unjust, illegal, and/or

[44] Francisco refers to transformative events as focal events (Davenport, Johnson & Mueller, 2008).

inappropriate.[45] Whereas a person is normally compelled to participate in movement activities, the transformative event impels a person to participate, view protest is justified, and to see the system as alienated. The process self reinforces the incentives to protest allowing the protest encouraging group to maintain frame alignment by using the repressors actions against him.[46] In an attempt to diffuse the opposition, "backfire can result from a political process that includes authorities' [or opposition's] tactics to manage, inhibit or promote outrage and which contentious actors typically attempt to oppose" (Hess & Martin, 2006, p. 249). Backfire, like a transformative event, increases the moral and public goods incentives through the safe processes.

D. POPULATION ALIGNMENT

The strategic interaction model depicted a spatial relationship between the population, government, and insurgency in response to the interaction of repression tactics. The mechanisms and processes applied to the strategic interaction model explain the spatial relationship resulting in population alignment, Table 4.

[45] The transformative event creates frame amplification of diagnostic, prognostic, and motivational frames and the alignment is explained through the corresponding bridging and extension (alignment based on ideology, values, and/or interest by common perception of an unjust act). The transformative event simplifies the core framing tasks by creating an interpretive frame resulting in frame alignment.

[46] State violence strengthens the opposition through a process called "political jiu-jitsu." This is also known as the "paradox or repression" (Sharp, 1973; Schock, 2005; Smithy & Kurtz, 1999; Hess & Martin, 2006, p. 251).

Govt/ Insurgent	Social Incentives	Moral Incentives	Public Good Incentives	Alignment
Type 1 Coercion/ Coercion	The population will not react to the sanctions of either side.	There will not participate or justify action in support of either side.	System alienation of both sides.	The population will not align with either side.
Type 2 Coercion/ Channing	The population will react favorable to the positive sanctions of the insurgent.	The extents to which the population will participate and justify protect action in support of insurgent increases.	The population experiences system alienation and views the insurgency as public good.	The population will align with the insurgency.
Type 3 Channeling/ Coercion	The population will react favorable to the positive sanctions of the government.	The moral incentives to protest are decreased.	System alienation of government is decreased.	The population aligns with the government.
Type 4 Channeling/ Channeling	The population will react favorably to the positive sanctions of both sides.	The moral incentives to protest are decreased.	System alienation is decreased for both sides.	The population is more closely aligned with both sides. However, the CI is assumed to have a resource advantage to affect alignment.

Table 4. Population Alignment.

In typology one, coercion/coercion, the incentives to protest in support of either group have been negated. Therefore, the population undergoes tactical adaptation and forms new alliances against both the government and insurgency (based on threat).[47] Additionally, the government or the insurgents alter their repression tactics and generate a new interpretive frame attempting frame alignment.[48] The same dynamics are at work in typologies two and three with one side using coercion and the other side utilizing channeling. The population forms an alliance with the side channeling based on a common threat or cause posed by the coercive actor (Chang, 2008, p. 655). The negative consequences of the incentive structures represented in typology two are greater for the government when the population is characterized by decentralized, reticulated,

[47] Chang identifies an increase in organizational capacity, changes in tactical repertoire, and frame development as just a few of the unintended consequences of repression (Chang, 2008, p. 652).

[48] Chang argues that for frame development to result in movement alliance/coalition it must unite based on common threat or cause (2008, p. 655). Common threat is likely to align heterogeneous groups and common cause is likely to align homogeneous groups (Chang, 2008, p. 655).

and segmented networks; whereas, the same network configurations enhances the expected positive outcomes for the government in typology three.[49] In typology four, both sides are positively influencing the incentive structures. However, in a COIN environment, it is assumed that the government has a resource advantage resulting in the population alignment.

E. CONCLUSION

A comprehensive COIN strategy addresses the key task of establishing legitimacy and influence over the relevant population. A framing contest considering the interaction of the repression tactics with the mechanisms and processes determine legitimacy and influence. Building a course of action begins with an analysis of each sides' architecture of power and properly employing (match-up) resources to achieve the desired depth and breadth of power in a given time and space. The theoretic framework does not conform to general laws to determine population alignment in a COIN environment. However, manipulating the mechanisms and processes, taking into the consideration the uniqueness of the situation, can achieve population alignment.

[49] The inverse argument is also true for the insurgents. This is representative of the enhancement/mitigation of the incentive structures by the intervening variable of mobilizing structures.

III. CASE STUDY: ANBAR AWAKENING

> Iraq experienced a spreading social movement, expanding along kinship lines that could best be described as a tribal rebellion against al-Qa`ida in Iraq (AQI) by a large body of accidental guerrillas who had formerly allowed themselves to be exploited by the takfiris. (Kilcullen, 2008)

A. INTRODUCTION

This chapter builds on the typology chapter through empirics of the Anbar Sunni tribal population and the population control measures utilized by AQI and GOI/US. The independent variables (IV), GOI/US and AQI repression tactics, explain the dependant variable (DV) of tribal alignment. The repression tactics result from process tracing the key events and decisions of AQI and GOI/US to create a repression typology. The mechanisms and processes facilitate an understanding of the deviation in the DV (tribal alignment) illustrating the spatial relationships depicted in the strategic interaction model. The structure of the chapter centers on two general timeframes: 2003–2006 and a transitional timeframe[50] because these timeframes display the deviation in the DV.

Before analyzing the specifics as they relate to the Anbar region of Iraq, it is important to identify two generalizations as they pertain to the situation in Iraq. The first deals primarily with the insurgent composition in Iraq. Although many different elements have joined the insurgency, all Sunni insurgent activity are attributed to AQI.[51] The second relates directly to the manner in which the authors refer to the Coalition Forces and government. The Government of Iraq

[50] The transitional timeframe does not have hard dates for the beginning and end because the transition varied in time and space throughout the Al Anbar province. The timeline generalizes to late 2005 through the spring of 2007 to include the events associated with the formation of the Sunni Awakening, the U.S. coalition surge, and the drastic reduction of violence throughout the Al Anbar province. Additionally, transition refers to the Sunni tribal population shift alignment from AQI to the GOI/US.

[51] Al Qaeda in Iraq formed in 2004, but it was an evolution and compilation of various Sunni insurgent groups who activity began in the summer of 2003 resisting the U.S. led coalition.

(GOI), not officially established until June 2004, refers to coalition and government activities as GOI/US throughout, regardless. These generalizations, although important to identify, neither detract from nor reinforce the methodology utilized. Nevertheless, as to not dilute the product's content, they are essential.

Figure 4. Timeline: 2003–2008

B. TIMEFRAME: 2003–2006

1. Repression Typology

The Anbar Province is approximately a third of Iraq's territory, but is home to only 1.3 million[52] of Iraq's 25 million inhabitants (Phillips, 2008, p. 8). Following the loss of military capability in the 1991 Gulf War, Saddam treated security in the Anbar Province as an economy of force operation. "Saddam made a virtue of necessity during the 1990's, endorsing a strategy of 'auxiliary tribalism' (Long, 2008, p. 75) that charged Anbar's sheikhs with responsibility for enforcing order

[52] The vast majority of the 1.3 inhabitants of the Al Anbar Province are Sunni Arab Muslims.

throughout the province" (Phillips, 2008, p. 9). During the post Gulf War period up through Operation Iraqi Freedom, Saddam altered his defense strategy knowing that he could not defeat a U.S. led coalition on the conventional battlefield. "To deal with the ground threat [of an impending U.S. lead invasion], Saddam intended to orchestrate a conventional defense, supported by irregular forces (both paramilitary militias and large numbers of foreign jihadist who entered the country with the official encouragement before the war)" (Eisenstadt & White, 2005, p. 2). These actions along with deBaa'thification and disbanding of the Iraqi army gave birth to the Sunni insurgency.

"Insurgencies are based on the struggle to control, or win over, the 'hearts and minds' of the society's civilian populace" (Eisenstadt & White, 2005, p. 22). Following defeat of the Saddam Regime, the U.S. began the reconstruction efforts to create a new Iraqi government. A prerequisite to standing up a viable and legitimate government is to maintain population control in the absence of comparable security forces. "At the same time, Iraqi Salafist began to mobilize openly, participating in the insurgency from its earliest stages" (Phillips, 2008, p. 6). "As 2003 progressed, however, the ineffective conventional resistance gave way to a much more dangerous insurgency and an incipient terrorist resistance to the U.S. occupation" (Searle, 2008, p. 63). The results are two parties vying for legitimacy, influence, and control over the population. The lens of repression[53] strategies captures how.

In 2003, "the first serious demonstrations against the occupation occurred in Fallujah, where several demonstrators were shot dead by U.S. forces, an event that deepened the animosity of the local population toward the American occupation" (Abedin, 2005, p. 2). From February–March 2004, the 2nd MARDIV assumed responsibility for the security of Anbar from the 82nd Airborne Division. The Marines planned to have a much more population centric operational

[53] Repression is "any actions taken by [government or insurgency] to impede mobilization, harass and intimidate activists, divide organizations, and physically, arrest, imprison, and/or kill [adversaries]" (Stockdill, 1996; Earl, 2003, p. 45). The definition captures that both sides have the same options to influence the population and that the contest is population centric.

concept than the 82nd Airborne Division. They hoped to revive a strategy from Vietnam—"to have as much contact with the population as possible, to build up rapport and separate the guerillas from the civilian population that gave them cover" (Negus, 2004). However, as their losses to insurgent fighters rapidly increased, the Marines increasingly failed to discriminate between the population and the enemy. This timeframe characterizes GOI/US operations that relied heavily on the coercive tactics of raids, cordon and searches, and population control measures targeting insurgents, high level Former Regime Elements (FRE), foreign fighters, and their sympathizers. A young soldier, understanding the counterproductive nature of the coercion, said, "Every time we raid one of their houses, we make a new enemy. Every time we raid a wedding we make dozens" (Negus, 2004). To operationalize at the strategic level, an understanding at the tactical level proved to take years.

The GOI/US large-scale Euphrates River Valley campaign[54] conducted in the fall 2005 to deny AQI sanctuary and safe-haven from Ramadi to Al Qaim, exemplify coercive heavy population control tactics. The conduct of these operations was largely indiscriminant based to single sourced, often unreliable information provided by local Iraqis with unknown allegiance. When information was unavailable through informant networks, GOI/US security forces conducted random cordon and search operations in problem areas based on analysis of insurgent activity.[55] The GOI/US operations resulted in numerous arrests, detentions, and collateral damage routinely based on little to no burden of proof.

At the same time, the GOI/US conducted limited channeling activities; typically, the activities were reactive in response to collateral damage, as the

[54] The campaign includes Operations Matador, Rivergate, and Steal Curtain (Long, 2008, p. 78).

[55] The GOI/US lacked the tactical intelligence-providing infrastructure needed to discriminate the insurgent from the population. This is captured in the 2006 U.S. Army COIN manual, "without good intelligence, counterinsurgents are like blind boxers wasting energy flailing at unseen opponents and perhaps causing unintended harm" (2006, p. 1-23). Additionally, the COIN manual states, "A cycle develops where operations produce intelligence that drives subsequent operations" (2006, p. 1-23). The latter characterizes the GOI/US effort to overcome the intelligence delta.

security situation did not allow for more proactive civil military operations. The U.S. tried to channel the fighters away from AQI as it withdrew from Fallujah by creating the “Fallujah Brigade, a unit recruited from the surrounding area and commanded by a former Republican Guard general [Mohammed Latif]” (Negus, 2004). This was a failed attempt at channeling and not only did the Fallujah brigade fail to fight AQI, they actually joined AQI as an organized group. Civilian military operation centers (CMOC) conducted the majority of the civil military operations (CMO) as opposed to interacting with the population in their own environment. The CMO process for injecting resources into the community, riddled with bureaucratic red tape, failed to meet the population’s necessities and quality of life.

By contrast, the predominance of AQI’s population control was in the channeling realm. “Foreign jihadist provided local insurgents with valuable connections to sources of financial support throughout the Muslim world” (Phillips, 2008, p. 10). Central to the AQI strategy was to channel the tribal support to their movement. Capitalizing on the tribe’s conservative religious view and distrust of a central government, AQI formed an alliance stemming from their common interest in expelling the Coalition from Iraq and arresting the Shiites political ascendancy (Phillips, 2008, p. 9). AQI identified GOI/US informant networks and responded with coercive tactics to include harassment, torture, and death. AQI targeted members of the Iraqi security forces and their families consisting of local native Sunnis. AQI and the tribal population were waging an insurgent campaign against the GOI/US; therefore, any action against security forces carried the perception of justice and legitimacy. Additionally, they used death threats and harassment to maintain control of the population.

2. Mechanisms and Process

The mechanisms and processes modulate the effects of repression tactics to establish an alliance between the population and AQI. The analysis begins by constructing the social environment that affect potential insurgents. AQI emerged

from a composite insurgency that included “former regime members, foreign jihadist, angry or aggrieved Iraqis, tribal groups, and criminals, who drew considerable strength from political and religious ideologies, tribal notions of honor and revenge, and shared solidarities deeply ingrained in the Sunni Triangle” (Eisenstadt & White, 2005, p. 3). Many of these insurgents were former Baath Party members and Iraqi army soldiers who were unemployed due to the deBaa’thification policies of the GOI/US. “Situational factors-social pressure, family or tribal ties, coercion, and material incentives-are often of decisive importance” (Eisenstadt & White, 2005, p. 10) explaining why people participate in insurgent related activities. Captured insurgent fighters listed their motives as “tribal or personal vengeance for a dead relative, or a destroyed house or poor treatment during a raid” (Negus, 2004). Additionally, AQI drew support from a large pool of unemployed workers in Anbar, estimated as high as 70 percent as of 2005 (Eisenstadt & White, 2005, p. 14). Having defined the population’s social environment, the repression tactics are now applied to explain increases and decreases of incentives to participate in insurgent activity.

How the tribes react to the population control measures is subject to perceptions of the individual and their social environment. The population perceived GOI/US coercive repression strategy illegitimate. The exact numbers exposed to perceived illegitimate repression is unknown. As of July 9, 2004, “22,000 security detainees had passed through U.S.-run prisons” (Negus, 2004). Most detentions lacked solid evidence of insurgent activity and resulted in months of detention. During their incarceration, the detainees endured perceived injustices and networked with likeminded individuals. The result of this experience was an insurgent, who had expanded his network of associates returned to the battlefield with the incentive to fight GOI/US forces. Compounding the problem was the GOI/US de-Baa’thification of the Iraq government after the defeat of the Sadaam regime.[56] “The sweeping implementation of de-

[56] De-Baa’thification was the missed opportunity for the GOI/US to channel the former regime security apparatus into the newly formed Iraqi government.

Baa'thification policy and the decision to dismantle the Iraqi Army deprived more than 400,000 Iraqis, many of them Sunni Arabs, of their livelihoods almost overnight" (Eisenstadt & White, 2005, p. 3). Persons who directly, as opposed to indirectly, experience perceived illegitimate repression are much more likely to respond to positive sanctions from their social environment to participate in insurgent activities.

Further enhancing the tribe's incentives to protest is AQI's channeling repression strategy that decreases the negative sanctions from supporting insurgent activity. The result of GOI/US and AQI tactics to control the tribal population is a larger pool of potential supporters for the insurgency. Eisenstadt and White capture the repression nexus created by suggesting the increasing amount of popular support the insurgents enjoy is a result of the effectiveness of their recruitment and mobilization efforts, their capacity for action, and the efficacy of the government countermeasures (2005, p. 7). This accounts for the individual tribal member's meso-level mobilization into insurgent supporting groups by increasing the moral and public goods incentives to act on behalf of the insurgency.[57] To illustrate the level of AQI support, in 2006, Anbar was responsible for 31.9% of significant actions (SIGACTs) in Iraq, Figure 5.[58]

[57] Being subjected to perceived illegitimate repression alone does not account for tribal support for the insurgency. When combined with the positive and negative sanctions of a larger social environment you move from being micro to meso-level mobilized.

[58] The 31.9% refers to normalized SIGACT data. The data is normalized by taking the total number of SIGACTs for the province in a year, divided by the provincial population, and multiplying by 100. For example, in 2006, Anbar had 13,902 (W. Marm, personal communication, September 11, 2009) SIGACTs, divided by a population of 1,280,000 (Iraq, 2009), and multiplying by 100 equaling 31.9%. The question of how much of the SIGACTs a particular population is responsible for is thus answered.

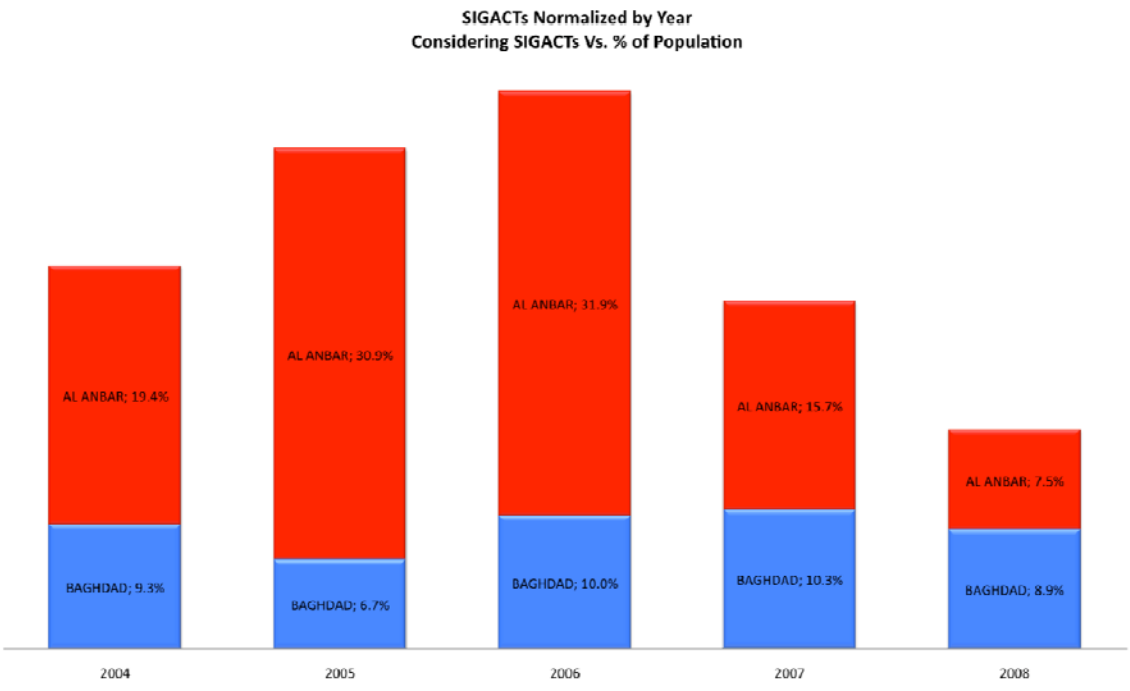

Figure 5. Anbar and Baghdad SIGACTs Normalized by Year

AQI and Sunni insurgents swim in a large sympathetic sea in Anbar. This is captured by Eisenstadt and Whites' reference to three separate opinion surveys taken in 2004–2005 by Iraqi and foreign pollsters show that between 45 percent and 85 percent of respondents in Sunni areas express support for insurgent attacks on U.S. forces (2005, p. 9). The normalized SIGACT data in Figure 5, illustrates Anbar disproportionately represented in comparison to Baghdad and the country as a whole. Examples of perceived illegitimate GOI/US repression include the following: in the early phases of occupation, tens of thousands of innocent Iraqis were wrongly detained, lost a family member, were humiliated or treated roughly at the hands of the coalition or Iraqi government forces (Eisenstadt & White, 2005, p. 10). Zarqawi provided additional examples, in a September 14, 2005 communiqué, detailing illegitimate GOI/US activities that included indiscriminate bombing, abuse of detainees, mistreatment of women, and support of Shia militias targeting the Sunni population (Special Dispatch 987, 2005). The illegitimate repression and the deBaa'thification

process created additional system alienation with the GOI/US. The interaction of AQI and GOI/US repression tactics resulted in an incentive structure in favor of AQI.

The mobilizing structures provide for the analysis of the organizational capacity of AQI and its effect on the population's incentive structures. Below are categorizations of the mobilizing structures of AQI and tribe.

	Micro Mobilization	Connective Structure	Leadership Structure
AQI	Segmented (socially embedded). Good mass support, but difficult to maintain.	Reticulated (Web like and informal). Robust, but difficult to coordinate.	Decentralized Leadership (robust but inefficient). Difficult to maintain trust and solidarity.
Tribes	Segmented (socially embedded). Good mass support, but difficult to maintain. Very pragmatic.	Reticulated (Web like and informal). Robust, but difficult to coordinate.	Decentralized Leadership (robust but inefficient). Difficult to maintain trust and solidarity.

Table 5. Mobilizing Structures

The tribes socially embed into the fabric of the population in Anbar. AQI embeds into the tribal population due to aligning against a common threat.

> They [AQI] have established a significant presence in many broad sectors of Sunni Arab society, including social, economic, religious, and criminal spheres. Its ranks include members of the former regime's intelligence and security services, former Baa'thist[59] Iraqi and foreign jihadist, and tribal figures, and it reportedly provides resources and direction to many insurgent groups. Personal, family, tribal, and religious ties are believed to facilitate cooperation and coordination among insurgent leaders. The connective structures of both the tribes and AQI are web-like, linked by personal, tribal, and organizational ties (Eisenstadt & White, 2005, pp. 14, 22).

With the alignment came access to the tribal infrastructure. The same smuggling and black market the tribes had relied on to survive were now bringing foreign fighters and weapons into Iraq (Searle, 2008, p. 63). Social embeddedness in the tribes strengthens the moral and public goods incentives

[59] Al Anbar has "historically provided many of the most competent officers in the Iraq military and security forces" (Abedin, 2005, p. 2).

and accounts for meso-level mobilization. The informal leadership, in both the tribes and AQI, increase the incentives to protest based on the requirement to maintain the trust and solidarity of their constituents. The net result of merging AQI and the tribe's mobilizing structures is depth of social control and increased mobilization through positive incentives subject to the groups maintaining frame alignment.

Analyzing the architecture of power provides a comparable discussion of the GOI/US organizational capacity. "In the operational design for Operation Iraqi Freedom; U.S. commanders and policy makers opted for a small, rapid force, which skirted Iraq's major population centers and employed overwhelming precision fires to execute a 'long-distance coup d'état' and bring about the rapid collapse of the regime" (Eisenstadt & White, 2005, p. 2). In the Anbar Province, the U.S. led coalition lacked both the depth and breadth needed to maintain control in the absence of government security forces. On June 28, 2004, when the CPA (Coalition Provisional Authority) handed over sovereignty to the Interim Iraqi government, AQI controlled Fallujah and maintained an open presence in many other Iraqi towns to include the provincial capital of Ramadi (Negus, 2004). As of July 15, 2005, "many villages and outpost in the province [Anbar] are under effective insurgent control and this is clearly boosting the organizational capabilities of the rebels" (Abedin, 2005, p. 2). AQI was the de facto law and government in Anbar.

The GOI/US controlled small pockets of territory in time and space. To overcome the lack of breadth, the GOI/US employed a strategy of massing security forces to clear problem areas and subsequently withdrawing. While occupying the problem areas, the security forces utilized coercive heavy tactics as an only option due to lack of depth needed to identify the insurgent networks. As previously described, the population perceives the coercion as illegitimate and

serves to strengthen the incentive structures in favor of AQI. The following figure[60] is an estimate of AQI's and GOI/US's organizational capacity in Anbar at the end of time period one.

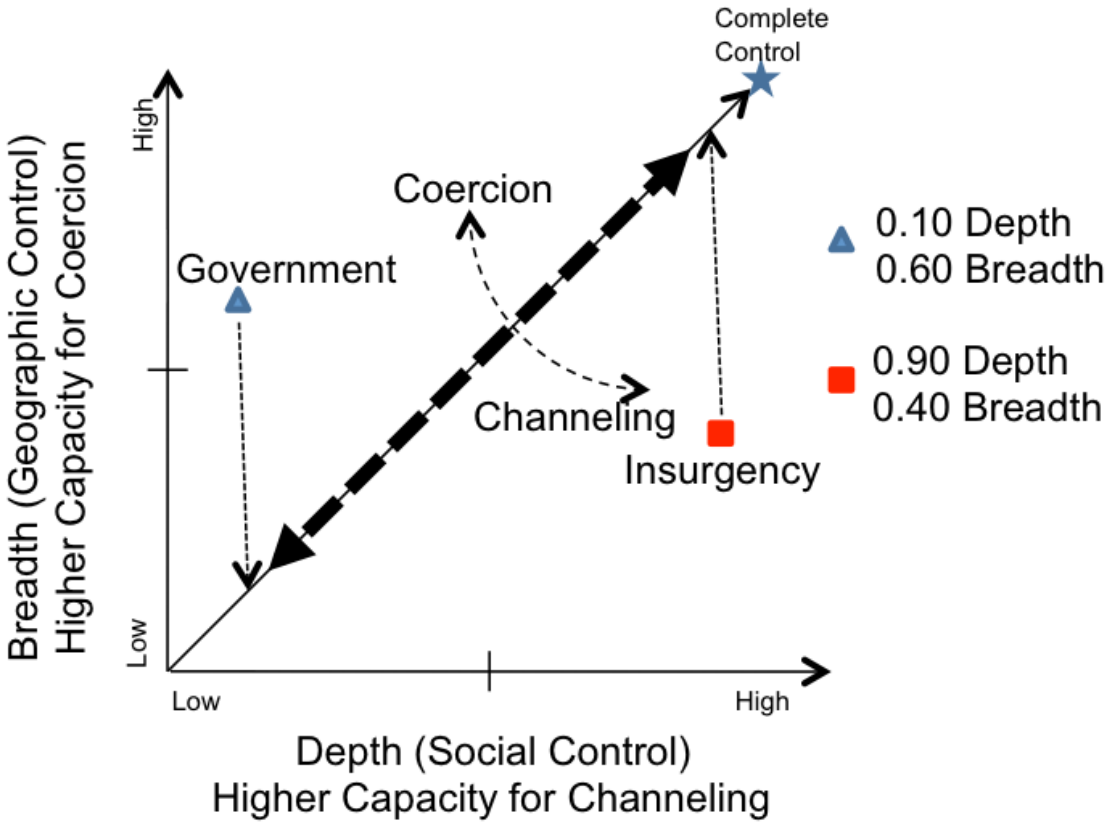

Figure 6. Organizational Capacity (Timeframe One)

The timeframe of 2003 to 2006 includes four transformative events: the fall of the regime and subsequent deBaa'thification, which included dismantling of security forces in the spring of 2003; the killing of four U.S. contractors in Fallujah, March 31, 2004; the breaking story of alleged torture and abuse of detainees in Abu Gharib, spring 2004; and the founding of AQI and pledging allegiance to Osama Bin Laden in October 2004. The fall of the regime resulted

[60] As means of controlling the population, the organizational capacity highlights the limit of options (tactics) available. Therefore, the organization capacity depicts the likely repression tactics used to control the population.

in a disenfranchised Sunni population that gave rise to an insurgency that subsequently aligned with AQI. AQI provided the Sunni population with a chance to return to the status quo, or at a minimum, a degree of self-determination.

The killing of U.S. contractors in Fallujah and hanging their charred bodies from the bridge led to the initial invasion of Fallujah in April 2004.[61] This led to a GOI/US population control strategy that became increasingly coercive. The GOI/US stopped short of their objectives of clearing the city of insurgents and what remained was a moral victory for the insurgents. The insurgents were emboldened and cognitively liberated, believing that the defeat of the GOI/US was possible. Near simultaneously, the scandal of Abu Ghraib broke, which detailed the widespread abuses of Iraqi detainees. The intense Arab media coverage of these events created a public outcry throughout the Sunni Arab world. These events led to dramatic increases in insurgent activity and forced the GOI/US to conduct a second siege of Fallujah in November 2004.

The transformative events and the backfire from the attempted cover-up of Abu Ghraib led to a dramatic increase in mobilization for the insurgency. The founding of AQI and pledging allegiance to Osama Bin Laden allowed Sunni insurgent organizations to align under the injustice frame. The effects on the incentive structures dramatically increased mobilization. The severe damage caused to GOI/US legitimacy negated the need for social incentives, and dramatically increased the moral and public goods incentives to oppose the GOI/US. The Sunni population universally understood what was the problem, who was to blame, the solution and the need for action.

3. Population Alignment

The repression tactics that represent the independent variable (IV) have been characterized. The interaction of repression tactics, affected by the

[61] The media coverage of the Blackwater contractor's incident led to public outcry for action in the U.S.

mechanisms and processes, create a spatial relationship between the GOI/US, AQI, and the population. The outcome of GOI/US coercion and AQI channeling is the population aligning with AQI.

The highlighted column of Table 6 corresponds to the strategic interaction model in cell two. Cell two of the strategic interaction model depicts the population more closely aligned with AQI based on the common threat caused by the coercive GOI/US strategy.

Govt/ Insurgent	Social Incentives	Moral Incentives	Public Good Incentives	Alignment
Type 1 Coercion/ Coercion	The population will not react to the sanctions of either side.	They will not participate or justify action in support of either side.	System alienation of both sides.	The population will not align with either side.
Type 2 Coercion/ Channing	The population will react favorable to the positive sanctions of the insurgent.	The extent to which the population will participate and justify action in support of insurgent increases.	The population experiences system alienation and views the insurgency as public good.	The population will align with the insurgency.
Type 3 Channeling/ Coercion	The population will react favorable to the positive sanctions of the government.	The moral incentives to protest are decreased.	System alienation of government is decreased.	The population aligns with the government.
Type 4 Channeling/ Channeling	The population will react favorably to the positive sanctions of both sides.	The moral incentives to protest are decreased.	System alienation is decreased for both sides.	The population is more closely aligned with both sides. However, the CI is assumed to have a resource advantage to affect alignment.

Table 6. Population Alignment (Timeframe One).

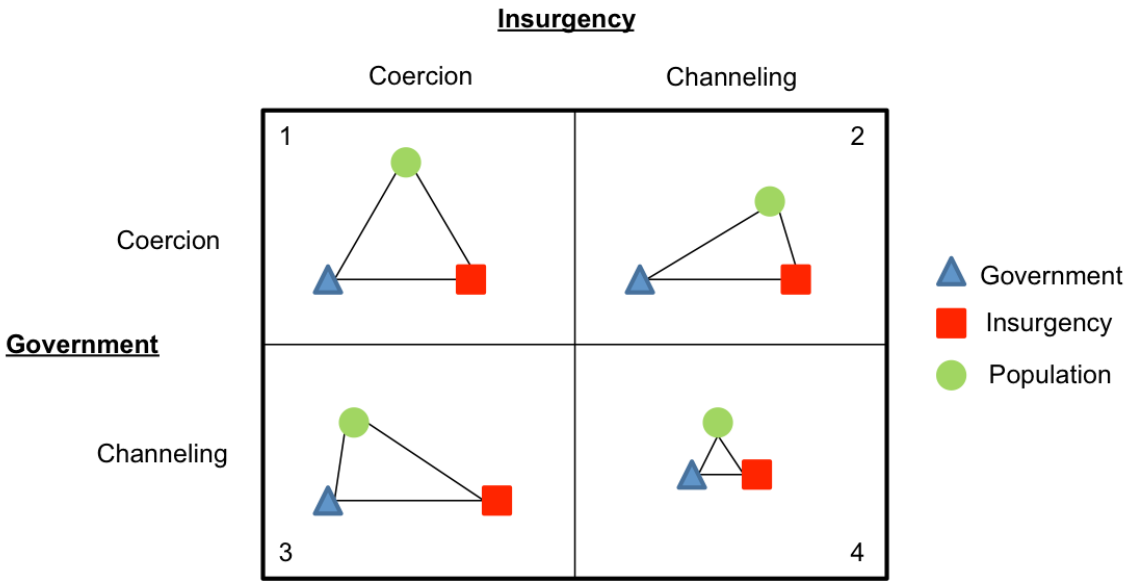

Figure 7. Strategic Interaction Model: Timeframe One (McCormick, 2008).[62]

C. TRANSITIONAL TIMEFRAME

1. Repression Typology

"In 2004, the mainstream Anbar tribes were sitting on the fence or leaning toward the insurgents and terrorists" (Searle, 2008, p. 63). However, the tribes were becoming increasingly dissatisfied with the status quo. "Al Qaeda had initially presented itself as a complimentary power but eventually become a competing and then dominant power" (McCary, 2009, p. 50). AQI and the tribes aligned to fight a common threat, not necessarily, because the tribes shared or approved of the inappropriate means AQI used to achieve their utopian goals.

To maintain this alignment, AQI required the popular support of its constituency. However, "Al Qaeda was taking over "all forms of power in the region, from violence to politics to finance-all at the expense of tribal leaders" (McCary, 2009, p. 48). AQI's manipulation of the tribes (subverting the tribal leaders and tribal customs) was weakening the alliance and motivating the tribal

[62] The strategic interaction model depicts a constant state given a particular time and space; however, the spatial relationship is modulated by the mechanisms and processes enhancing or mitigating the effects of the interacting repression strategies. For example, the transformative events explained during this timeframe increased the distance between the population and GOI/US, while at the same time, decreased the distance between the population and AQI.

leaders to look for alternatives. “An unnamed Sunni leader complained that ‘the resistance group had two options: either fight AQI and negotiate with the Americans or fight the Americans and join the Islamic State of Iraq [AQI]” (Simon, 2008). The tribes had a long history of resisting any form of central control that was inconsistent with tribal norms and values.

“Sunni tribal leaders in Anbar deemed al Qaeda’s influence as more of a threat to their continued rule, while U.S. forces were considered to be less and less of a determining factor in the region” (McCary, 2009, p. 44). In 2005, the fissures led to violence as the Albu Mahal tribe began to fight the AQI “occupation” around the town of Al Qaim. However, in May of 2005, the GOI/US failed to capitalize on an opportunity to support the initial tribes to revolt against AQI. Later, a larger tribal alliance of the Albu Nimr and the Albu Mahal tribes formed the Hamza Forces to fight AQI from Hit to Al Qaim along the Euphrates River Valley (ERV). “Fasal al-Gaoud, a former governor of Anbar and sheikh of the Albu Nimr, contacted U.S. Marines for support.[63] The Marines had already been planning an offensive around al Qaim, so this could have been an ideal moment to cement an alliance. Instead, the Marine offensive, known as *Operation Matador*, was uncoordinated with the tribes and made use of intensive firepower, which alienated many tribesmen by destroying portions of Al Qaim” (Long, 2008, p. 78). This was a failed GOI/US opportunity to forge a relationship with tribes in Anbar and to channel support away from AQI.

In 2006, the GOI/US jettisoned their coercive tactics targeting the Sunni insurgency in Anbar in favor of a population centric strategy.[64] It is arguable that the change in strategy was a result of analysis and understanding of the nature of the AQI/population alignment or a last resort. Either way, the results were dramatic and surprised even the naysayers predicting a Vietnam like end to the

[63] As early as 2005, it was a known fact that U.S. authorities were holding talks with representatives of the insurgents, which was later confirmed by Donald Rumsfeld (Abedin, 2005, p. 3).

[64] “These efforts require trust and willingness to place trust on locals, as well as the confidence to empower and enable local leaders” (McCary, 2009, p. 55).

war. The change of tactics included not only the ‘what’, but the ‘how’ and built off a grass-root effort that began in 2004. The channeling strategy had two parts: (1) provide resources to the tribes through tribal leaders and (2) develop tribal paramilitary forces to secure the population.

In 2004, SOF (Special Operations Forces) teams operating in the Anbar province began to engage tribal leaders on security issues. SOF teams “approached lower-level tribal sub-sheikhs and found out what they needed in terms of civil affairs (CA) projects” (Searle, 2008, p. 63). The focus on sub-sheikh came from an understanding of how influence flows through the tribe.[65] At the sub-sheikh or clan level, leadership begins to centralize. The conditions were ideal as the sub-sheikhs were seeing their authority undermined by the efforts of AQI. The CA “projects increased the prestige and authority of the sub-sheikhs, thereby undermining the sheikhs above them” (Searle, 2008, p. 63). While true, it had even a greater effect by increasing the sub-sheikhs ‘wasta’ within his tribe and among other tribes.[66] “Empowering the sheikhs had a substantial benefit of reinforcing both the sheikh’s authority and the indigenous Iraqi social structures that could be maintained indefinitely”[67] (Searle, 2008, p. 64). However, this required the tribal leaders to operate within the goals and objectives of the GOI/US. “Any tribal leader who tolerated insurgent activity was brought into line by denying his tribe access to the economic benefits of supporting the coalition” (Searle, 2008, p. 63). Tribal engagement was slow to produce tangible results and met with varying degrees of skepticism within the GOI/US, but by 2006, was becoming increasingly apparent as the tribes formed the Anbar Awakening in opposition to AQI.

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[65] Clan, or *fakhd* (pl. *afkhdh*). The *fakhd* is the third level of tribal structure. Each of which has its own chief and its own name and specific territory generally corresponding to a village and serves as the basic units in productive terms; they organize pastures, own sources of water and have a strong sense of territoriality (Todd, 2006, p. 2–43).

[66] Wasta in Arabic roughly means "connections" or influence, and is arguably the most valuable form of currency in much of the Middle East, far more effective than bribes and certainly more effective than following due process (The Wonders of Wasta, 2009).

[67] “Each tribe is headed by a sheikh, whose legitimacy is based on his ability to provide for his people, which engenders patronage to his will” (McCary, 2009, pp. 45–46).

The strategy shift to channeling was resulting in small incremental shifts of tribal allegiance from AQI to paramilitary security forces under the auspices of GOI/US. Any element that changed allegiance from AQI to GOI/US would be subject to the coercive forces of AQI, and therefore, required security assistance. "The commanders helped tribal leaders regain their ability to provide their population with security by strengthening preexisting, traditional means of power sharing and fiscal distribution by reintroducing tribal ordering" (McCary, 2009, p. 54). One of the first recognized paramilitary forces developed by GOI/US was the Desert Protectors tasked with providing security in the vast expanses of western Anbar (Searle, 2008, pp. 64–65).[68] Later, in November 2005, GOI/US forces launched Operation Steel Curtain, a second attempt to deny AQI safe haven and sanctuary in the Al Qaim area. The GOI/US, having failed to support the Hamza forces earlier, coordinated and cooperated with the Albu Mahal leaving stay behind forces at the conclusion of the operation to support the Albu Mahal tribes in the fight against AQI (Long, 2008, p. 78). This was the first successful large-scale coalition of tribes and GOI/US forces operating against AQI.

"However, many in the [GOI/US] remained reluctant to fully embrace a tribal strategy. More importantly, tribal leaders were targeted by al-Qaeda in a coercive campaign of murder and intimidation, which sapped many tribes of the will to fight" (Long, 2008, p. 79). The change would come from a realization that the current GOI/US strategy was not working and the tribes consolidating in

[68] Many other examples exist. Although designed to provide security, one day they were low-level AQI operatives and the next channeled away to tribal security forces. "In July 2006, SOF and the 1st Battalion, 36th Infantry Regiment, combined to carry out the first successful police recruiting drive in the Anbar city of Hit; 150 tribesman joined the local force as a result" (Searle, 2008, p. 65). In the summer of 2007, "the 2nd Battalion, 5th Cavalry Regiment, 1st Cavalry Division, worked with a 2,300 man Sunni unit, dubbed the Volunteers, to patrol a sector of Anbar between Baghdad and Fallujah" (Searle, 2008, p. 66).

opposition to AQI.[69] "The U.S. would work to exploit a grass-roots anti-al Qaeda movement already underway by taking pressure off the insurgents who had begun to point their weapons at the jihadists and funneling money to tribal leaders. In theory, this would help dismantle the jihadist infrastructure and create islands of stability that would eventually join like 'oil spots" (Simon, 2008). In effect, the change of strategy became less about defeating AQI than winning the influence of the population. A byproduct of the winning the population would be defeating AQI, now absent of the human and geographic terrain needed to thrive.

Trial runs and localized successes at tribal engagement would become an overarching strategy to defeat AQI. "Bush observed in his January surge speech that Sunnis were challenging al Qaeda's presence in Iraq, and a February 2007 National Intelligence Estimate on Iraq recommended 'deputizing, resourcing, and working more directly with neighborhood watch groups and establishing grievance committees–to help mend frayed relationships between tribal and religious groups, which have mobilized into community warfare over the past three years" (Simon, 2008). This announcement preceded an influx of resources into the tribal system.

"The Army commander for Ramadi, Col Sean McFarland, essentially offered to 'deputize' a sheikh's militia, allowing police recruits to guard their own neighborhoods, an approach previously expressly forbidden by U.S. policy" (McCary, 2009, p. 49). From February 2007 to February 2008, "over 220 million has been funneled through Ramadi's sheikhs"[70] (Katulis, Juul, & Moss, 2008, p.

[69] In February 2007, the United States strategy took into account these realities. "Whereas the United States had intermittingly engaged with the tribal leaders in Anbar from 2004 onwards in its efforts to stabilize the security situation, the possibility of forming a de facto alliance with the tribes emerged only once the Sunnis had themselves become disenchanted with AQI, and once the United States had grown equally disillusioned with the prospects of achieving a 'top down' process of political reconciliation through the auspices of the Al Maliki government" (Simon 2008, Phillips, 2008, p. 13).

[70] "The deals were mediated by tribal leaders and consisted of payments of $360 per month per combatant in exchange for allegiance and cooperation." (Simon, 2008) "By paying the sheikhs directly and allowing them to distribute the money as they saw fit, tribal leaders were able to regain their legitimacy and demand the loyalty of their tribesmen as they had done in the past" (McCary, 2009, p. 50).

5). The GOI/US also changed how their forces were employed; shifting away from secure bases and "fanning out to small outpost in populated areas, where they maintained a presence and backed up the local police" (Searle, 2008, p. 65). These actions channeled the population away from AQI while providing the necessary protection from AQI retribution. In sum, "the U.S. military almost completely changed its reconstruction and security policy in the province, sending money through Sunni tribal sheikhs instead of contract bids or the central government. Most significantly, the U.S. authorized, funded, and armed Sunni militias, which co-opted al Qaeda and insurgent recruiting and provided local security" (McCary, 2009, p. 45). The GOI/US channeling efforts were providing the tribes with a viable alternative to supporting AQI.

By the end of 2004, Abu Musab Al Zaraqi's Tawid Al Jihad[71] network had asserted itself as the Sunni insurgent group most capable of organizing and leading resistance to the GOI/US. As AQI "gained strength, it imposed its will on the local community" (Searle, 2008, p. 65). AQI's Islamist ideology, characterized by its monoism, collectivism, utopianism, and hyper-moralist vision of society, put them at odds with the pragmatic Anbar tribes. AQI's foreign jihadist taking wives from the tribe, disrespect for the sheikhs, and the intimidation and murders for nonconformity was becoming a greater factor in the alliance than the threat posed by the GOI/US.

AQI used violence against any target that posed a threat to its existence in Anbar and they had a clear strategy in support of their vision.[72]

> The Sunni insurgents conduct purposeful activities; they do not attack randomly. Their counter-collaboration line of operation (LOO) "attacks ISF and Iraqi government personnel and facilities, translators working for the coalition forces or personnel, and tipsters. Their counter-stability LOO attacks civilians, religious sites, independent tribal or community leaders, foreign diplomats, and

[71] The predecessor to Qaidat al-Jihad fi Bilad al-Rafidayn (QJBR), which would later become Al Qaeda in Iraq after Abu Musab, Al Zarqawi pledged allegiance to Al Qaeda.

[72] These targets included the tribes that had received schools, medical clinics, and other infrastructure development projects from the GOI/US to improve the quality of life for the tribes.

> international and nongovernmental organizations. Another LOO, counter-election, was implemented prior to the January 2005 elections, and consists of attacks against voters, election officials, and candidates. (Eisenstadt & White, 2005, pp. 19–20)

These actions send a message to the tribes and the Sunni population that collaboration is not tolerated. For supporters of the resistance, the coercive nature of AQI repression was at least tolerable if not legitimate. These tactics were also very effective means of controlling the population. “The insurgent campaign against ‘collaborators’, including ISF recruits and members (and families), has been highly successful, with insurgents killing high numbers of Iraqis working for the government or connected to the reconstruction effort and intimidating many more” (Eisenstadt & White, 2005, p. 20). The success came at the price of alienating the population to AQI, which would eventually lead to their demise.[73]

“The Iraqi Sunnis’ enthusiasm for the alliance waned as AQI increasingly attempted to assert its leadership” (Simon, 2008). Specifically, AQI alienated tribes by attempting to control the daily aspects of life. “Al Qaeda operatives regularly meted out brutal punishments for seemingly trivial social transgressions such as smoking cigarettes or watching satellite television” (International Group 2008; Paley, 2008; Phillips, 2008, p. 17). These types of actions combined with AQI’s coercive channeling of resources away from the tribe was developing rifts that risked AQI remaining aligned with the tribes.

> Al Qaeda mounted a campaign of deadly intimidations, and slowly but surely began taking control of money-making activities traditionally held by tribes. To force sheikhs and tribal leaders in Iraq to cede financial or tactical control, al Qaeda mounted a violent campaign of gruesome, demonstrative intimidation: kidnapping, assassinations, torture, and grotesque murders of tribal leaders and their family members, including beheading and public dismemberment. (McCary, 2009, p. 47)

[73] AQI had overestimated their influence over the tribes and their tactics resulted in degradation of depth in social control.

One of the tribes most affected was the Albu Risha tribe. They had “lost control over portions of the road from Baghdad to Amman, undermining its ability to raise revenue by taxing or extorting traders or travelers. When the Albu Rishas’ leaders protested, Sheikh Bazi al Rishawi, was killed along with one of his sons, and two more of his sons were abducted” (Simon, 2008). Throughout 2005, the rift turned into a split within the insurgency between Anbar’s tribal leadership and AQI. This was apparent as the Albu Mahal, Albu Fahd, and Albu Risha tribes resisted AQI control (Long, 2008, p. 78; Simon, 2008). Throughout 2004 and 2005, AQI was successful at coercing the tribal leadership back into their control. However, under AQI control, support was often passive and the discontent with AQI would continue to build. The tribal leaders would now actively seek viable options to AQI control in Anbar and the December 2005 elections would provide them with an alternative political order.

“In December 2005 Sheikh Nasr, head of the Albu Fahd tribe was assassinated. He was abducted and murdered by AQI operatives a day after meeting with U.S. Ambassador Zalmay Khalilzad and other tribal leaders, who gathered to discuss ways to reduce violence in Anbar” (McCary, 2009, p. 47). With the rift growing larger, AQI identified the December 2005 elections as a threat to their control over the Anbar tribal population. Days before the December 2005 elections, Abu Musab Al Zarqawi warned its supporters “the Crusaders are preparing for the new ‘Dayton’ conspiracy by forming an alliance with the fools amongst Sunnis. Additionally, Zarqawi threatened to “massacre any Sunni or Shiites who dared to vote in the democratic elections”[74] (Kohlmann, 2007, p. 2).

[74] These threats build off previous communiqués from Bin Laden and Zarqawi urging the Iraqi population not to support the Iraqi Elections. On December 27, 2004, Bin Laden was quoted as saying, “Muslims must beware of these kinds of elections. They must unite around the *Jihad* warriors and those who resist the occupiers." He continued, "Anyone who participates in these elections … has committed apostasy against Allah.” Bin Laden explained that participation in these elections is apostasy because the Iraqi constitution is "a Jahiliyya constitution that is made by man" and because "the elections are ordered by America, under their airplanes, bombs, and tanks” (Special Dispatch 837, 2004). On January 26, 2005, Zarqawi followed with another warning. "Take care not to go near the centers of heresy and abomination, that is, the election [booths.] He who has warned has carried out his duty; [if something happens] do not blame us, but yourselves” (Special Dispatch 987, 2005).

AQI was increasing their rhetoric and actions against challenges to their power base. Targeting the elections was not necessarily a mistake for AQI, but creating the conditions where the tribes were in support of the elections was a strategic miscalculation. Targeting the tribal leaders' acts of defiance served to increase the distance between the tribes and AQI while creating an opportunity for GOI/US channeling efforts.

The shift in alignment from AQI to the GOI/US came in two phases. First, the tribal leaders broke the alliance with AQI while many tribal members remained. This resulted in AQI violently repressing the tribal leaders. Second, once the tribal leaders received GOI/US support and were able to compete with AQI, the tribal members chose their tribes over AQI and coercion was a factor in the tribal members aligning with the tribal leaders. Sheikh Abdul Sattar, whose father Shiekh Rishawi's was killed by AQI, assembled a small group of tribal figures (with the help of funds from the local U.S. military commander) under the banner of the Anbar Salvation Council to roll back Al Qaeda's influence" (Simon, 2008). The threat posed by AQI was aligning the tribes in support GOI/US and AQI responded with even more coercion, to include many spectacular assassinations. This included the assassination of prominent Awakening members Fasl Al Gaoud, the former governor of Ramadi, in a hotel suicide bombing on June 25, 2007, and Abd al Sattar, who had met President Bush two weeks earlier, on September, 13, 2007 (McCary, 2009, p. 49). However, the coercion and corresponding message was failing to control the perceptions and behavior of the tribes.

By late 2007, it was clear that AQI had overplayed its hand while coercing the tribes that constituted the backbone of the insurgency since its inception in 2003. AQ central had identified the futility of such a strategy well before the death of AQI leader Abu Musab Al Zarqawi. "The alliance between Al Qaeda and Zarqawi was plagued by disagreements over strategy and tactics, with the former decrying Zarqawi for alienating Muslim public opinion through his routine resort to indiscriminate killing of Iraqi civilians" (Wright, 2005; Phillips, 2008, p. 7). "In the

end, AQI alienated many Sunni Arabs with attacks that killed numerous innocent civilians, and with the extreme version of Islam that they imposed in areas under their sway" (Eisenstadt & White, 2005, p. 32). AQI and the tribes were united in opposition to the GOI/US, but in the end, AQI's Islamist ideology was not compatible with the tribes desire to remain autonomous.

2. Mechanisms and Processes

Not all coercive repression results in insurgent violence any more than all channeling reduces insurgent violence. However, analysis of repression by way of the mechanisms and processes accounts for the mobilization of the Sunni Anbar tribes in support of GOI/US. The tribes' decision to move away from AQI and to align with the GOI/US was not a result of AQI's coercive acts or the GOI/US channeling alone. It does account for some of the changes in AQI's and the GOI/US's architecture of power that changed the available options to control the population. The change was a result of the interaction of both sides' tactics and transformative events that ultimately changed the incentive structures of the tribes to resist AQI.

Former regime elements, foreign jihadist, angry or aggrieved Iraqis, tribal groups and criminal elements formed AQI (Eisenstadt & White, 2005, p. 3) and it is arguable that no element was more important than the tribes were. AQI was able to form a composite Sunni insurgency because the incentives to protest heavily favored resistance to GOI/US in the wake of the 2003 invasion. Starting late in 2004 and gaining momentum throughout 2005, AQI's coercive internal social control of the tribes pushed many tribal leaders and members away. By late 2005, the GOI/US bottom up approach to channeling through tribal leaders yielded tactical results and provided a viable option to rid Anbar of AQI. During the transition timeframe, AQI's actions can be best characterized as coercion, while the GOI/US is channeling.

The Anbar tribes' social environment was changing because of the population control measures utilized by AQI and GOI/US. The quasi legitimacy

AQI enjoyed early in the insurgency resulted in the tribes responding favorably to the moral and public goods incentives to oppose the GOI/US. However, as AQI began to assert control over the daily aspects of life, which was inconsistent with tribal norms and values, the social environment changed. “By the beginning of 2006, local opinion in Anbar was turning decisively against AQI[75]” (Phillips, 2008, p. 12). The incentives to conform to AQI’s vision of society lessened the effect of social incentives to support AQI, negating the moral and public good incentives to oppose the GOI/US. The tribal leaders, who lost their traditional role as leaders within their society, began to distance themselves from AQI. AQI responded with harsh coercion to conform.

> Tribal leaders were targeted by al-Qaeda in a coercive campaign of murder and intimidation, which sapped many tribes of the will to fight. The success of the terrorists in this campaign was due in part to the nature of tribal loyalty. Al-Qaeda was able to turn clans and families from the same tribe against one another with a combination of carrots (money and other patronage) and sticks (threats of assassination). This pattern of failed efforts to oppose al-Qaeda in Anbar continued into 2006. (Long, 2008, p. 79)

The tribal leaders united in opposition to AQI to reverse the trend and the GOI/US capitalized on the opportunity to forge an alliance with the tribes.

“Confronted with a brutal AQI occupation, the tribal sheikhs had ample reasons to look for alternatives. AQI had displaced the tribal leaders as the de facto power broker in the tribal areas. This combined with the trend of escalating violence[76] in Anbar had the U.S. looking for an alternative strategy. By 2006, the U.S. and Iraqi government policy toward the tribes was more sympathetic” (Searle, 2008, p. 65). The GOI/US channeling efforts focused on sub-sheikh tribal leaders, increasing their ability to provide for their tribes. The tribal leaders were now able to compete with AQI for the allegiance of their members. When

[75] This assessment is supported by the backfire in the wake the bombing of the Al Askaria Mosque in Samarra viewed negatively by both Sunni and Shia populations (Ghosh, 2006). Additional support was the Albu Nimr and Albu Mahal tribes’ resistance to AQI in Western Anbar beginning in the summer of 2005 (Long, 2008, p. 78; Simon, 2008).

[76] In 2005 and 2006, Anbar was the most violent province in Iraq and the trend was worsening (W. Marm, personal communication, September 11, 2009).

forced to choose, [the] men followed their tribes" (McCary, 2009, p. 52). "For Sunni Muslims in Anbar, the strongest remaining form of identity was their tribe, which consist of various smaller clans that are in turned composed of extended families" (McCary, 2009, p. 45) with "more than 85% of Iraqis claim some form of tribal affiliation" (Kilcullen, 2008, p. 1). With support to tribes contingent upon supporting the GOI/US goals and objectives, the tribal leaders utilized positive and negative sanctions to bring tribal members into line.[77]

"Once Sheikh Abdul Sattar Abu Risha decided to support the U.S. and the Iraqi government, he was tireless in promoting his new cause" (Searle, 2008, p. 66). The result of the changing social environment led to a micro and meso-level mobilization away from AQI. With the tribal leaders legitimately controlling the social environment, the moral incentives increase in opposition to AQI. "As one sheikh put it, 'We consider the Americans to be our friends at the moment so that we can get rid of the extremist" (McCary, 2009, p. 51). The tribes, threatened by AQI's presence, are now sanctioning violent opposition to AQI; at the same time, the norms of violence and protest against the GOI/US is no longer justified. Additionally, the tribes are alienated with the political order AQI espouses and regard opposition as a public good. Killcullen captures that sentiment of the tribe in the quote of an unnamed Iraqi informant,

> Then AQI killed a tribal leader because of an argument over this [tribal leaders opposing AQI's not recognizing tribal customs]. Then the tribes turned against them because they believed they were trying to rule over them and tell them what to do. AQI killed the sheikh's sons, and killed other people and attacked the fuel smuggling the tribes used to make money. Then more and more leaders turned against the takfiryun and now the tribes were fighting AQI. (2008, p. 2)

[77] The GOI/US provided resources to the tribal leaders, which had the responsibility for their dispersion (Searle, 2008, p. 63). The resources provided the tribal leaders the wasta needed to control the tribal member's behavior. If the tribal leaders failed to support the GOI/US objective, they risked exclusion from the GOI/US channeling efforts; losing their ability to influence their tribe.

AQI's ability to utilize incentive structures to control behavior eroded; therefore, any AQI coercion further strengthens the tribe's alliance with GOI/US. "AQI atrocities merely activated tribal revenge obligations, thereby fortifying rather than weakening the resolve of the AQI enemies" (Kilcullen, 2007; Phillips, 2008). With the tribes aligned with GOI/US, coercion is a legitimate option to control insurgent behavior. With the social environment negatively sanctioning insurgent activity,[78] visibility and information on insurgent networks increase, which allows for discriminate targeting of an increasing isolated AQI organization.

Analysis of the mobilizing structures captures organizational capacity of AQI during the transition timeframe. Changes in the mobilizing structures influence the effect of interacting repression tactics on the population's incentive structures. Table 7 contrasts the characterizations of AQI and the Anbar tribes during the two timeframes.

		Micro Mobilization	Connective Structure	Leadership Structure
AQI	2003-2006	Segmented (socially embedded). Good mass support, but difficult to maintain.	Reticulated (Web like and informal). Robust, but difficult to coordinate.	Decentralized Leadership (robust but inefficient). Difficult to maintain trust and solidarity.
	Transition	Unsegmented. Was segmented to the degree the tribes fill AQI ranks.	Reticulated, but no longer connected to tribes at the meso-level.	Centralized in response to the threat posed by tribes aligned with GOI/US. Tried to consolidate control by establishing Islamic State of Iraq.
Tribe	2003-2006	Segmented (socially embedded). Good mass support, but difficult to maintain. Very pragmatic.	Reticulated (Web like and informal). Robust, but difficult to coordinate.	Decentralized Leadership (robust but inefficient). Difficult to maintain trust and solidarity.
	Transition	Segmented, but combined to form large tribal grouping in opposition to AQI.	Trend toward unreticulated in order to respond to threat posed by AQI.	Threat based centralization empowered by GOI/US channeling efforts through tribal leaders.
			Note: These changes in the mobilizing structures made coordination and channeling possible.	

Table 7. Changes in the Mobilizing Structures

[78] This includes tribal members still operating in support of AQI.

“Despite the spectacular successes that had been attributed to AQI, it was the nationalist Sunnis who provided the backbone of the insurgency and had most of the killing and dying” (Simon, 2008). AQI was socially embedded to the degree the tribes aligned with them to fill their ranks with fighters and supporters. As the tribes united into larger groups opposing AQI, AQI became an isolated unsegmented group. As a homogeneous extremist group, AQI was no longer part of the tribes’ social environment; thereby, lessening their ability to manipulate incentive structures to control the population’s behavior. Although AQI remained reticulated, the loss of social embeddedness removed the connective structures required for meso-level mobilization and manipulation of the tribes. The centrality of AQI leadership changed as tribal opposition increased. The AQI centralization of leadership and organizational structure is a response to an organization in decay. The attempt to centralize control over the tribes further alienated the population, resulting in a public good incentive to mobilize in opposition to AQI. “Tribal leaders organize the local population according to its own priorities” (McCary, 2009, p. 46). The net result of changes in the mobilizing structures accounts for the demobilization of support for AQI and mobilizing in support for GOI/US.

The tribes’ realignment had a dramatic effect on the GOI/US architecture of power in Anbar. It provided the GOI/US the much needed depth and breadth to defeat AQI in Anbar. As of 2005, U.S. government estimated that the Sunni insurgency consisted of 3,500 fighters, 10,000-20,000 active collaborators, and 1,000 foreign jihadists (Eisenstadt & White, 2005, p. 7). This conservative estimate illustrates how the size and scope of the problem dramatically changed when the 3,500 fighters and 10,000–20,000 active collaborators realign in support of the GOI/US. “By early 2008, over 90,000 predominately Sunni militiamen had been organized into ‘Sons of Iraq” groups tasked with the responsibility of fighting AQI, leaving the latter both outgunned and increasingly more estranged from local population” (Simon, 2008; Phillip, 2008, p. 3). The militias and a surge of 21,500 U.S. troops fanned out into small outposts in

support of their new allies to defeat AQI. The breadth provided the organizational capacity to provide security for the tribal population and defeat AQI, but the depth gain through the alliance that provided information needed to focus these forces.[79] With the incentive structures supporting the tribal alliance against AQI, the sea was drained and AQI was denied the human to terrain to maneuver against the GOI/US. The following figure is an estimate of AQI's and GOI/US's organizational capacity in Anbar following the tribes shift in alliance.

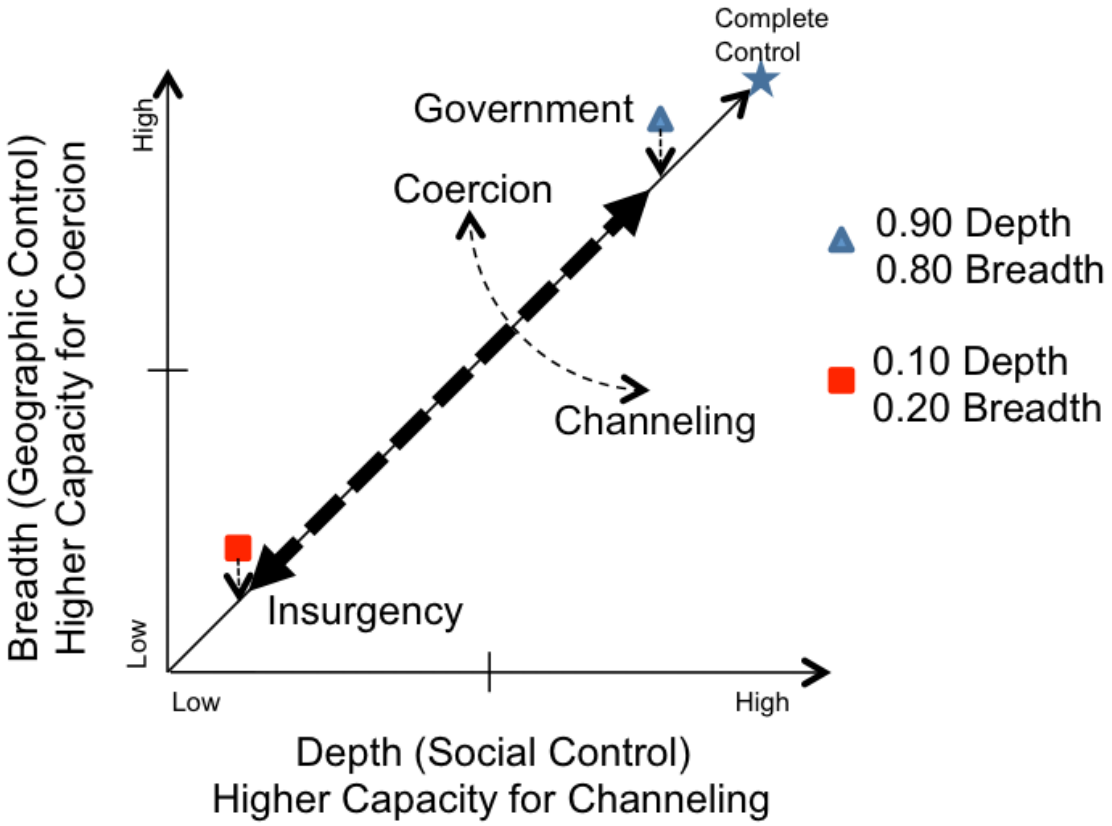

Figure 8. Organizational Capacity (Transition Timeframe)

The transition period included two transformative events that drastically affected the incentives to support AQI: the December 2005 election and the February 2006 bombing of Askariya Mosque. Prior to the December 2005

[79] "The 2nd Battalion, 5th Cavalry Regiment, 1st Cavalry Division, worked with a 2,300-man Sunni unit, dubbed the volunteers, to patrol a sector of Anbar between Baghdad and Fallujah. According to the division commander, violence fell sharply in the area between April and July 2007, and no attacks on U.S. forces occurred there for two months (Searle, 2008, p. 66).

elections, Abu Musab Al Zarqawi threatened violence against Iraqis who participated in the national elections (Kohlmann, 2007, p. 2). Failing to participate in previous elections had not benefited the Anbar tribes,[80] and this combined with the political order AQI provided, led the tribes to search for alternatives. AQI understood the threat that the political process posed to their coexistence with the tribes. Zarqawi threatened to "massacre any Sunni or Shiites who dared to vote in the democratic elections" (Kohlmann, 2007, p. 3). AQI spiked sectarian violence in September 2005 in an attempt to disrupt the December elections (Hafez, 2006, p. 605). Despite AQI's attempt to derail the election process, "the December 2005 round of national elections went ahead peacefully and with the participation of large numbers of both Sunnis[81] and Shiites" (Kohlmann, 2007, p. 3). This resulted in AQI broadening the scope of their operations from targeting just GOI/US security forces, to targeting the civilian population (Sunni and Shiite) and security forces.

Following the 2005 election, AQI viewed civilians as legitimate, vulnerable, and useful targets (Eisenstadt & White, 2005, p. 20). From December 2005 to January 2006, the number of persons killed by suicide bombing increased 244% (Hafez, 2006, p. 606). Previously, when AQI targeted the GOI/US security forces, the population perceived this as legitimate and defensive action. However, when this tactic failed to achieve the desired results (derail the political process), AQI made terrorism their predominant tactic.[82] AQI selected targets based on their symbolic or representative value, as a means of instilling anxiety in, transmitting messages to, and thereby manipulating the perceptions and/or behavior of a wider target audience (Terrorism Definition, 2009). AQI became terrorists as opposed to insurgents, losing their subjective legitimacy within the population.

[80] In the 2005 provincial elections, voter turnout in Al Anbar was less than 2% (Russo, 2009).

[81] More than 80 percent turned out in Ramadi and other insurgent strongholds in far western Iraq's Upper Euphrates valley, estimated a Ramadi election official, Yaseen Nouri. Election officials in cities of the Kurdish-populated north reported 70 percent participation (Knickmeyer & Finer, 2005*).*

[82] Terrorism is based off the triadic relationship between the perpetrator, victim, and wider target audience as opposed to just perpetrator and the victim (Terrorism Definition, 2009).

This transformative event raised the moral and public good incentives to act against AQI. This resulted in mobilization away from AQI, thereby, diminishing their organizational capacity and available options to control the population (channel).

The second transformative event was the February 22, 2006, AQI bombing of the Al Askariya Mosque in Samarra. Up to this point, AQI had failed to incite large-scale sectarian violence between the Sunni and Shiite populations.

> They could hardly have picked a more provocative one than al-Askari. It is associated with three venerated Shi'ite imams, including the Mahdi, or Hidden Imam, who is believed to have disappeared in 878 into a tunnel directly under al-Askari. The two imams buried in the shrine were the Mahdi's father and grandfather. Most Shi'ites believe that the Mahdi will one day reappear as a messiah to bring justice to the world. That makes al-Askari one of Shi'ite Islam's holiest sites, exceeded in veneration only by the shrines of Najaf and Karbala. Even Samarra's Sunnis hold al-Askari in high esteem. Struggling to explain their emotions at the sight of the shattered dome, many Shi'ites cited the U.S. response to the collapsing towers of the World Trade Center. "This is our 9/11," became a common refrain for Shi'ite commentators. (Ghosh, 2006)

The bombing of the Al Askariya Mosque initiated widespread sectarian violence throughout Iraq, including Anbar. AQI's strategy aimed to create a civil war between Sunni and Shia backfired when AQI could not protect the Sunnis from retribution from the Shia death squads. This attack not only accounted for loss of legitimacy in Anbar, it caused mass mobilization throughout the Muslim world in opposition to AQI's tactics. Even Ayman Al Zawahari, AQ Deputy Commander, decried Zarqawi for alienating Muslim public opinion through his routine resort to indiscriminant killing of Iraqi civilians (Wright, 2005; Phillips, 2008, p. 7). AQI's actions not only created the moral and public goods incentives of the tribes in opposition to AQI, but also that of the population of Iraq as a whole. Consequently, the value of the alliance between the tribes and AQI diminished as the sectarian violence increased (Phillips, 2008, p. 13).

Stemmed by the aftermath of the December 2005 elections and a failure to consolidate a fragmenting insurgency, AQI needed to transform their image. “January 16, 2006, AQI’s Media Wing issued a new communiqué announcing the formation of a joint military alliance with like-minded Iraqi insurgent factions, to be known as the Mujahideen Shura Council (MSC)” (Kohlmann, 2007, p. 3). However, the MSC failed to align disparate Sunni insurgent factions. The worsening prospects and the death of their leader, Abu Musab Al Zarqawi, left AQI needing fighters to fill its ranks and support from a sympathetic population.

On October 15, 2006, the MSC declared that Anbar and parts of several other western provinces form the Islamic State of Iraq, “allegedly with the support of a host of new tribal partners…[with] a representative of each tribe” (Kohlmann, 2007, p. 4). The declaration was an attempt to ‘Iraqify’ AQI, even going so far as to develop a shadow government with all key positions headed by fictitious Iraq leaders to realign the population in support of the movement. However, it is doubtful that the tribes supported the new attempt to assert dominance over the Sunni insurgency, much less AQI de facto rule over the Anbar population.

> AQI was trying to take advantage of this weakly controlled territory, but they clearly were not in a position to ‘govern’ across so wide an area. Declaring a ‘counter-state’ is a classic insurgent technique designed to legitimize the resistance and discredit the central government. The new strategy implies that ISI/AQI will protect and defend Sunnis throughout the new state. (Fishman, 2006)

By creating the ISI, AQI attempted to jettison the Al Qaeda brand and with it, past failures. The transformative frame failed to resonate and further shifted the incentives structures against them. “An Iraqi-led coalition of Sunni tribal Sheikhs in Anbar publicly announced their split with al Qaeda and began working with U.S. military forces to oust the foreign-led terrorist group” (McCary, 2009, p. 44). An insurgent counter-movement, Reformation and Jihad Front, was making gains by consolidating control of the remaining Sunni insurgents who were waging war against AQI (Kohlmann, 2007, p. 15). By the fall of 2006, the one thing Sunnis, Shiites, GOI/US, and rival insurgents groups could agree on was

opposition to AQI and the Islamic State of Iraq. The tribes, represented by the Anbar awakening, aligned with GOI/US and fought AQI forces in their tribal areas. Splinter Sunni insurgent groups were uniting under the Reformation and Jihad Front and fighting AQI in ethnic Sunni areas.

3. Population Alignment

The shift can be attributed to "Al Qaeda's threat to their continued hold on power and the developing U.S. military approach" (McCary, 2009, p. 44). Timeframe 1 ended with the tribes aligned with AQI, as represented by Type 2. The first significant empirical account of a shift in alliance began with the Abu Mahal and the Abu Nimr tribes challenging AQI control in the Al Qaim area (Long, 2008, p. 78). AQI responded by increasing coercion for tribal transgressions. This marks the beginning of the transition period with both AQI and the GOI/US utilizing coercion to control the population (Type 1).

Govt/ Insurgent	Social Incentives	Moral Incentives	Public Good Incentives	Alignment
Type 1 Coercion/ Coercion	The population will not react to the sanctions of either side.	They will not participate or justify action in support of either side.	System alienation of both sides.	The population will not align with either side.
Type 2 Coercion/ Channing	The population will react favorable to the positive sanctions of the insurgent.	The extent to which the population will participate and justify action in support of insurgent increases.	The population experiences system alienation and views the insurgency as public good.	The population will align with the insurgency.
Type 3 Channeling/ Coercion	The population will react favorable to the positive sanctions of the government.	The moral incentives to protest are decreased.	System alienation of government is decreased.	The population aligns with the government.
Type 4 Channeling/ Channeling	The population will react favorably to the positive sanctions of both sides.	The moral incentives to protest are decreased.	System alienation is decreased for both sides.	The population is more closely aligned with both sides. However, the CI is assumed to have a resource advantage to affect alignment.

Table 8. Population Alignment (Transition Timeframe).

"Only after their partnership with Al Qaeda became untenable and there were incentives to ally with the U.S. did they choose to form a new alliance. Tribal leaders in Anbar began quietly forming alliances with U.S. military forces against Al Qaeda" (McCary, 2009, p. 43) because of GOI/US tribal engagement strategy focused on channeling. The GOI/US began to channel resources through tribal leaders to win their cooperation. With the cooperation to the tribal leaders, came increased depth of social control and breadth with addition of the tribal security forces. "The alliances came from two groups: the Anbar Salvation Council, led by the former governor of Ramadi, Fasal al-Gaoud[83] and the Awakening, led by Abd al Sattar,[84] sheikh of the Albu Risha tribe" (McCary, 2009, p. 48). The outcome of the GOI/US channeling and AQI coercion is the population aligning with GOI/US (Type 3).

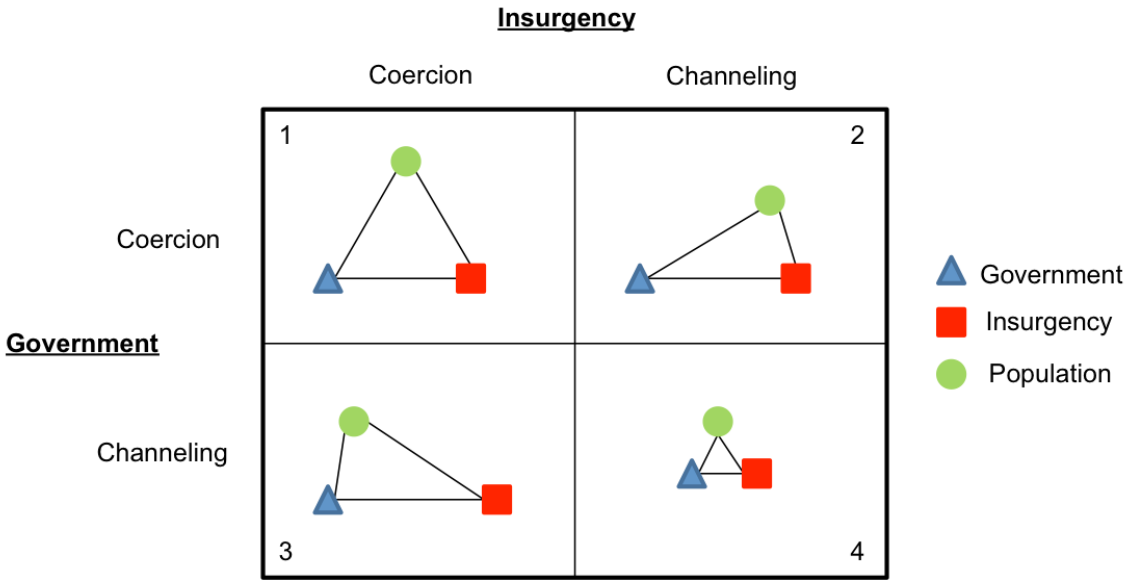

Figure 9. Strategic Interaction Model: Transition Timeframe (McCormick, 2008).

[83] Al-Gaoud was instrumental in forming the Albu Mahal Desert Protectors in 2005, a tribal militia along the remote Syrian desert border in Al Qaim and an important example of tribal willingness to resist Al Qaeda (McCary, 2009, p. 48).

[84] In September 2006, abd al Sattar publicly announces his group would resist AQI and seek U.S. support (McCary, 2009, p. 49).

D. CONCLUSION

"The Anbar experience illustrates that indigenous proxies can play a critical role in eradicating jihadist terrorist, appearing to vindicate the 'indirect approach' to counter-terrorism that was advocated in the most recent Quadrennial Defense Review" (Quadrennial Defense Review, 2006; Phillips, 2008, p. 20). The results of the change in strategy are undeniable. "U.S. casualties are down significantly from their peak in mid-2007, the level of violence in Iraq is lower than at any point since 2005, and Baghdad seems the safest it has been since the fall of Saddam Hussein's regime" (Simon, 2008). The following figure depicts the SIGACT totals for Anbar by year. Anbar peaked with 13,902 SIGACTs in 2006, followed by 7,226 SIGACTs in 2007, and finally, dropped to the lowest levels of the war in 2008 at 1,157 (W. Marm, personal communication, September 11, 2009).

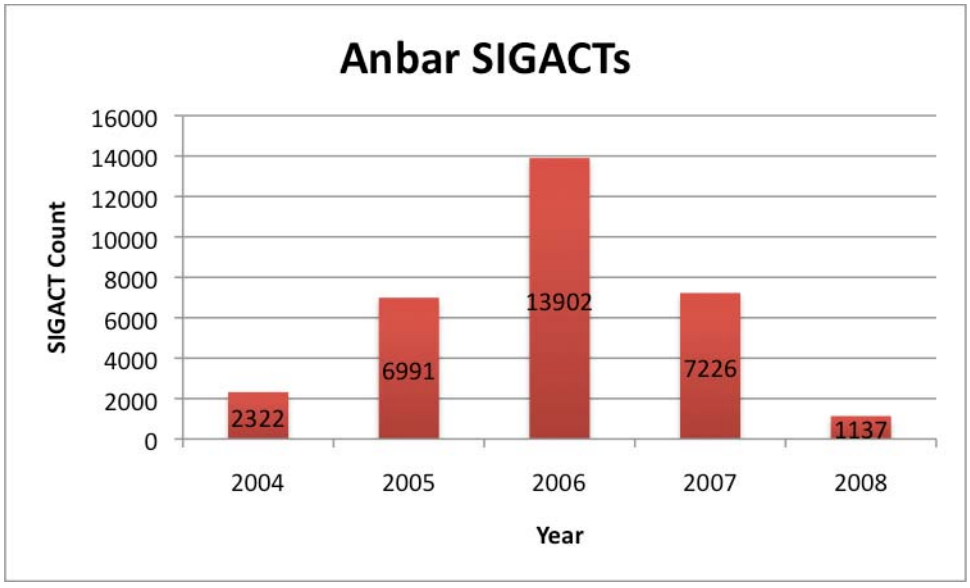

Figure 10. SIGACT total by Province

The effects of the surge have been mischaracterized. "The number of troops associated with the surge, often credited for increasing stability in the region, is much less important than the strategic change to empower local

leaders" (McCary, 2009, p. 51).[85] The surge contributed by providing additional security forces to augment the tribal partners, but more importantly, it was how the GOI/US forces were employed. The troops deployed into the Iraqi communities to enhance the GOI/US effort to channel the population away from AQI. The additional security forces, U.S. and tribal elements, combined with the resources provided to tribal leadership aligned the population with GOI/US.

"Iraq experienced a spreading social movement, expanding along kinship lines that could be best described as a tribal rebellion against AQI by a large body of accidental guerillas who had formerly allowed themselves to be exploited by the takfiris" (Kilcullen, 2008, p. 2). The GOI/US adopted a population centric strategy aimed at winning the influence and legitimacy of the tribes as opposed to defeating AQI.

With the tribes aligned with the GOI/US, AQI lost access to the mobilizing structures, drastically diminishing their organizational capacity. The naysayers argue that tribal militias pose a greater long-term threat to the stability of Iraq than AQI (Simon, 2008). However, "An armed and organized Sunni population was not necessarily a destabilizing political factor. It helped create an informal authority structure that helped build political unity and social coherence within the Sunni community, moving away from the situation of hundreds of fragmented and independent insurgent groups, and community leaders unable to control them, which plagued initial attempts to de-escalate the Sunni insurgency" (Kilcullen, 2008, p. 4). "As Col McFarland observes, 'No matter how imperfect the tribal system appeared to us, it was capable of providing social order and control through culturally appropriate means where governmental control was weak" (McCary, 2009, p. 54). The tribes remain very pragmatic and require

[85] "General Patreaus's new counter-insurgency strategy, or the surge, was not actually implemented on the ground until mid-2007. The strategy cannot explain the birth or effects of the Awakening, which began as early as 2005 and gained momentum throughout 2006" (McCary, 2009 p. 52).

concessions[86] from the GOI. The "newly formed alliances in the region will succeed or fail not based on political or religious affiliation, but on whether the groups' interest continue to converge on common incentives, such as political participation and economic redevelopment" (McCary, 2009, p. 53).

The tactical power gained from the alliance with the tribes does not account for the drop in violence. The fact is the insurgents, militias, death squads, security forces, and local AQI members were one in the same (McCary, 2009, p. 52). The GOI/US was able to win the allegiance of the tribal leaders, although culturally consistent channeling, which increased their depth of social control. "The strategy of building alliances with local tribal leaders and reconciling with former fighters has been mentioned by newly appointed head of U.S. Central Command, Gen. David H. Petraeus, as an important option in the counterinsurgency campaign in Afghanistan against the resurgent Taliban and Al Qaeda" (McCary, 2009, p. 45).

The successes in Iraq could be less about what the GOI/US did than what AQI did.

> If AQI was ever going to have achieved its goals, it would have needed to have augmented its own military capabilities by carefully cultivating local alliances and steadily persuading these allies as to the merits of the jihadi cause. Instead, AQI consistently over-rated it value as an alliance partner to the Sunni population, while simultaneously underestimating the degree of resentment it was generating through the many burdens it was imposing on its host. (Phillips, 2008, p. 15)

AQI and the tribes' interests diverged when AQI began to target the Iraq population. The threat posed by the GOI/US was no longer enough to align the tribes with AQI. Therefore, they attempted to create a civil war between the Sunni and Shia populations to unite the Sunni population in opposition to the Shia dominated GOI. Al Qaeda Central recognized the futility of AQI's strategy.

[86] Concessions made while negotiating from a position of weakness, real or perceived, can signal the opposition's vulnerability.

> Al-Zawahiri, in his letter, tried to convince al-Zarqawi of the need for a more savvy political approach rather than the sole reliance on attacks. He was saying that, if al Qaeda is to become a competitive player, it needs to gain popular support, tolerate the Shia, use the ideology card judiciously and understand that the bulk of Muslims (especially the ulema) do not share the Wahhabi ideology. He also urged al-Zarqawi against appearing the cruel terrorist by carrying out and broadcasting hostage executions. Among the things, which the feelings of the Muslim populace who love and support you will never find palaTable . . . are the scenes of slaughtering the hostages. Al Zawahiri reminded Al-Zarqawi that 'more than half of this battle is taking place in the battlefield of the media . . . we are in a media battle in a race for the hearts and minds of our ummah. (STRATFOR, 2005)

AQI attempted to use religious ideology to legitimize their activities and garner support. However, the attempt to assert their Islamist agenda on the tribes was perceived as illegitimate, and ultimately, led the pragmatic Anbar tribes to search for alternatives. AQI actions to circumvent the tribal structure made the alliance possible. The tribal leaders sought the support of the GOI/US and received the necessary resources to win the allegiance of the tribal members away from AQI. With AQI isolated and the GOI/US enjoying the additional depth and breadth that came with the alignment, AQI was defeated in Al Anbar. To some, this short-term fix ultimately is a threat to the viability of the Iraqi government. However, new political alliances are now forming across sectarian divides to include Prime Minister Malaki's Dawa Party with members of the Anbar Awakening for the upcoming Iraqi national elections (Parker, 2009). Any long-term solution need have to address the problems created by the sectarian divides that manifest in the political structure of Iraq.

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IV. GAME THEORY AND AGENT-BASED MODELING

> When the agents use adaptive rather than optimizing strategies, deducing the consequences is often impossible; simulation becomes necessary. (Axelrod, 1997)

A. INTRODUCTION

The theoretical framework attempts to explain the mechanisms and processes that affect the interaction of repression tactics resulting in population alignment (DV). The game theoretic approach utilizes basic techniques and progressively increases in complexity to capture nuances of our theoretical framework. Game theory, although limited to cross-sections of time, is used to examine the external validity of the theoretical framework of which test implications were not fully vindicated by the empirical observations using process tracing. In addition, agent-based modeling (ABM) is introduced to overcome the limitations of game theory and to determine the applicability of the theory into areas not supported with empirics. The ABM overcomes the stylized nature of game theory by not focusing exclusively on equilibrium. Instead, ABM captures the dynamical history of the mechanisms and processes by manipulating the parameters that alter the effects of the interaction of repression tactics on population alignment. Congruence tests compares ABM and empirics of the Anbar Awakening case study.[87]

The strategic interaction model[88] requires an understanding of the mechanisms and processes that explain the predicted outcomes and spatial relationships.

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[87] The Anbar Awakening case study utilizes empirics over time to test the theoretical framework for congruence. Additionally, government, insurgency, and population are used interchangeably with GOI/US, AQI, and tribes throughout the chapter.

[88] It is important to understand that the strategic interaction model depicts a constant state given a particular time and space; however, the spatial relationship is modulated by the mechanisms and processes enhancing or mitigating the effects of the interacting repression strategies.

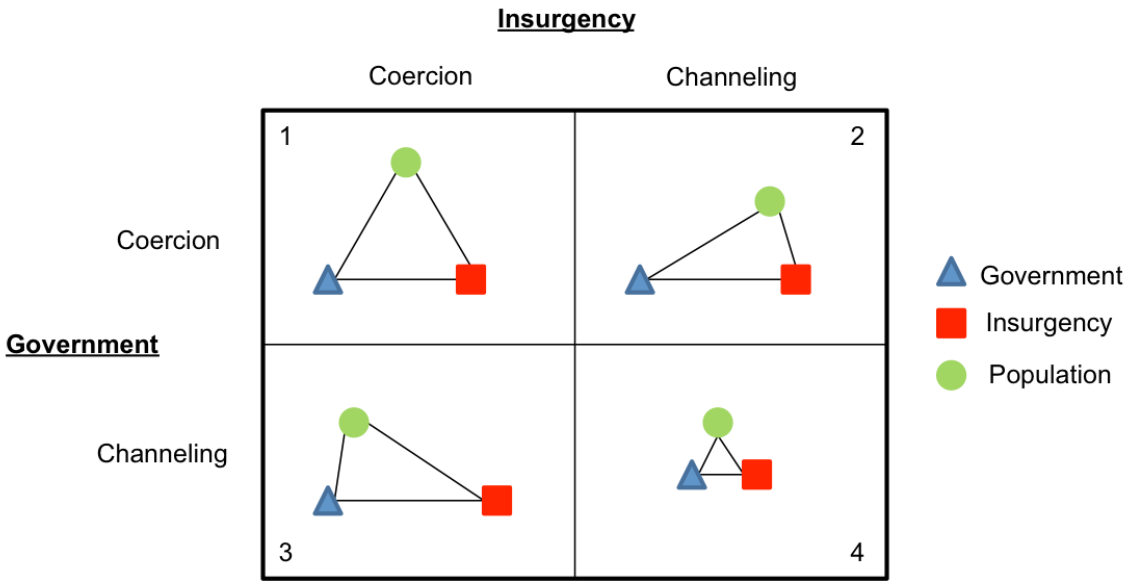

Figure 11. Strategic Interaction Model (McCormick, 2008).

Figure 12 provides an alternate visualization of the strategic interaction model by illustrating the two strategies and the hypothesized population alignments. However, for simplicity, the population is given only three alignment choices instead of four.[89]

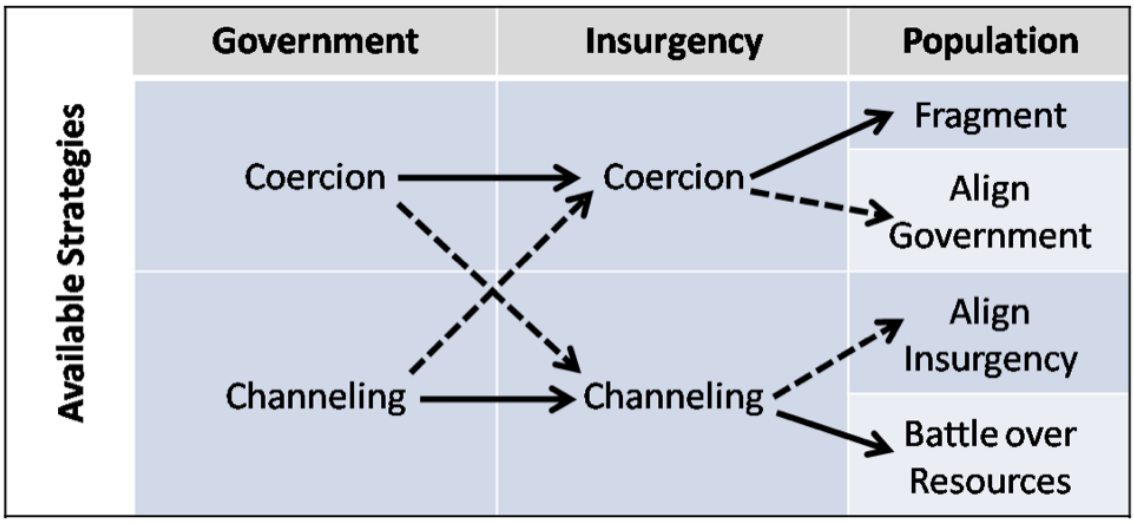

Figure 12. Alternate Visual of Strategic Interaction Model

[89] It is assumed that in a battle over resources, the government has an advantage over the insurgency and the population will align with government.

An extensive form game is created to visualize the potential decisions available to each of the three players; government, insurgency, and population. Figure 13[90] highlights that multiple players with multiple strategies interact to increase the possible outcomes of the game. By simplifying the population's choices to three, the possible combination of outcomes is twelve. The extensive form of the game does not account for the player's utility of action. The highlighted gray boxes correspond to the predicted outcomes of the strategic interaction model without regard to the mechanisms and processes.

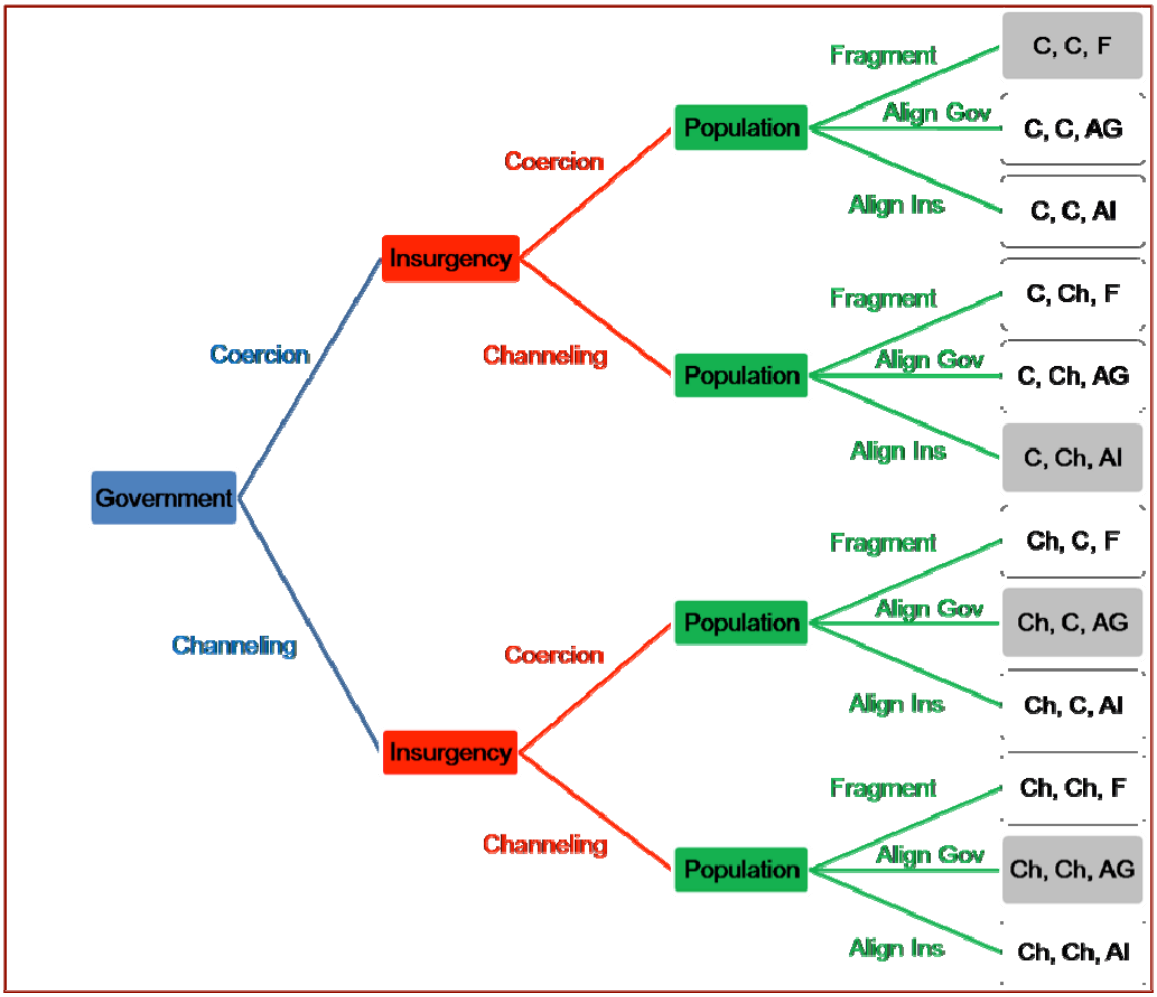

Figure 13. Extensive Form Game of Strategic Interaction Model.

[90] Figure 13 contains the following abbreviations: G or GOV is used for government, I or INS is used for insurgency, F is used for fragment, C is used for coercion, Ch is used for channeling, and A is used for aligned.

Not accounting for the mechanisms and processes results in four strategy profiles in equilibrium.[91] Continuing the assumption that the strategic interaction model would provide four strategy profiles in equilibrium, backwards induction is utilized to determine dominant strategies for all players. Assuming the population is pragmatic and the government and insurgency desires the population's alignment, the following dominant strategies are concluded: Government; Insurgency; Population = Ch; Ch, Ch; F, Align I, Align G, Align G.

However, the initial assumption of the strategic interaction model remaining static is not consistent with the theoretical framework. The mechanisms and processes, enhances or mitigates the effects of the interacting repression strategies, modulate the spatial relationship of the players within the strategic interaction model. Additionally, the use of backward induction determines strategies from a known outcome. To arrive at the dominant strategies requires all players have common knowledge of the strategic interaction model without regards to the mechanisms and processes. The value of the extensive form game is illustrating the complexity of the interacting repression tactics as they affect population alignment. Building on the extensive form of the game begins by assigning ordinal utilities to the three players.

B. ORDINAL SCALE COALITION GAMES

The three player coalition games manipulate the utility to replicate the observations from process tracing the Anbar Awakening. The static nature of these games is a limiting factor. Running three iterations overcomes the adaptive

[91] The four strategy profiles in equilibrium are the gray shaded boxes in the extensive form game; CCF, CChAI, ChCAG, and ChChAG. Remembering that for ChChAG, it is assumed the government enjoys a resource advantage and over time should win the resource battle and achieve population alignment.

behavior of the participants and modulation of population alignment. The three iterations correspond to the three observed population alignments observed in the process tracing of the case study.[92]

Ordinal values[93] simplify the game and determine possible outcomes. The coalition game simplifies the extensive form game by providing only two strategies for each player. The government and insurgency maintain their original strategies of coercing and channeling. However, the population has only two strategies,[94] alignment with the government or alignment with the insurgency. The assumptions are that all coercion is indiscriminant and the government and insurgent organizational capacity determine what repression strategy controls the population.

1. Iteration One (Timeframe One)

The organizational capacity of the GOI/US for timeframe one (2003–2006) is illustrated in Figure 14. The GOI/US has a breadth advantage and utilizes this advantage by relying heavily on coercive repression tactics. On the other hand, AQI is socially embedded within the tribes and has a depth advantage enabling a channeling strategy. The tribes, pragmatic in nature, prefer AQI's channeling efforts and align accordingly.

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[92] In the Anbar Awakening case study, it is contended that in time period one, 2003–2006, the GOI/US predominantly utilize coercion, AQI predominantly use channeling, and the population is aligned with the insurgency (AQI). Early in the transition period, the GOI/US continue to coerce, AQI shift to a more coercive heavy strategy, and the population becomes disenfranchised and begins looking for alternatives (fragments). As the transition period progresses, the GOI/US shift to channeling, AQI continue to increase coercion, and the population aligns with GOI/US.

[93] Ordinal values only rank preference and are not concerned with the potential payoff.

[94] This adjustment is necessary to provide a simple 2x2x2 game that illustrates potential outcomes. When viewing the utility scale for the population, note that coercion—coercion (CC) results in low values. Although it is possible to infer that the population is not happy with this outcome, this does not account for the fragmentation option and results in another limitation of the three-player coalition game.

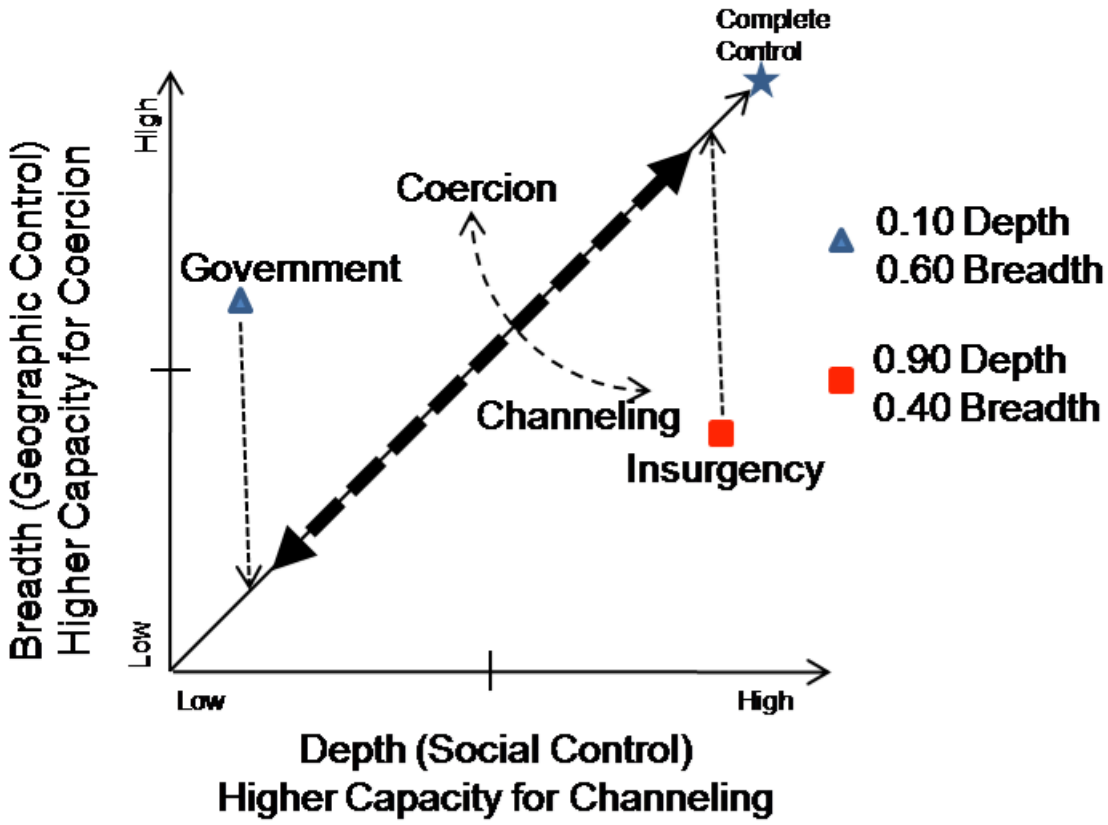

Figure 14. Organizational Capacity (2003–2006).

The analysis of organizational capacity derived from observations of the case study serves as a basis for assigning ordinal utility values to potential outcomes. In timeframe one, both GOI/US and AQI prefer to maintain their repression strategy based on organizational capacity, as opposed to what would result in the desired population alignment. The pragmatic population capitalizes by aligning with the player offering resources via channeling. Table 9 depicts each player's ordinal utility values (preference) given the eight potential outcomes.

Outcomes	Government	Insurgency	Population
CCAG	8	2	1
CCAI	6	4	2
CChAG	7	6	5
CChAI	5	8	6
ChCAG	4	1	4
ChCAI	2	3	3
ChChAG	3	5	8
ChChAI	1	7	7

Table 9. Ordinal Utility Scales (Timeframe One).

Applying each player's utility value into a three player game matrix, an equilibrium exists when the government coerces, insurgency channels, and the population aligns with the insurgents, Figure 15.

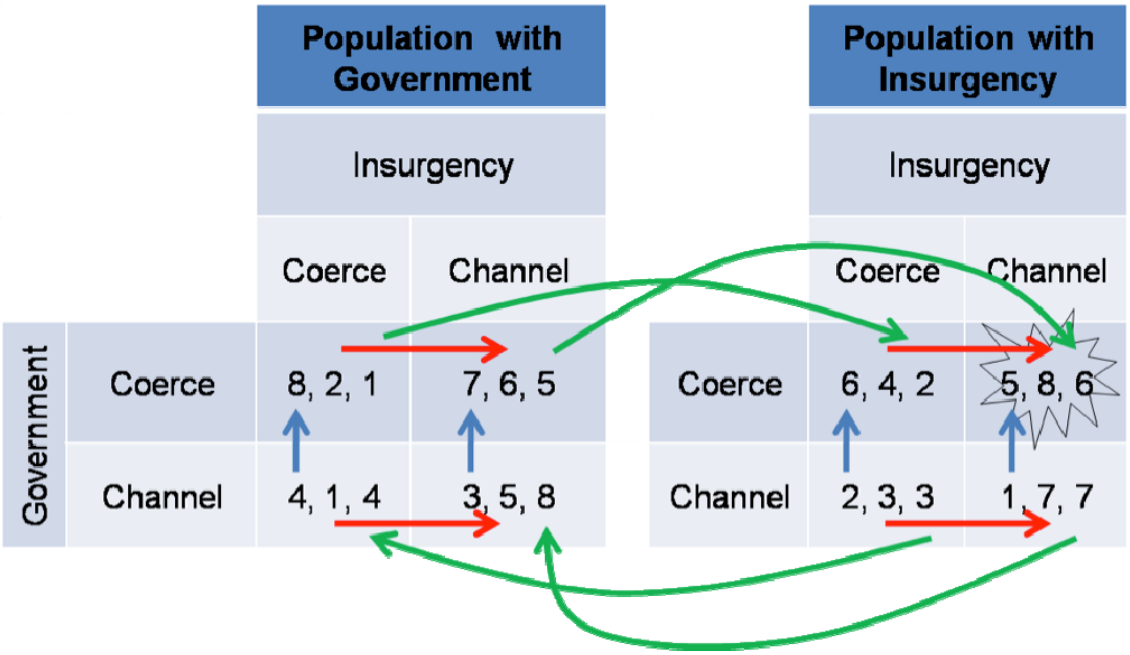

Figure 15. Alignment Game (Timeframe One).

Iteration one of the ordinal value coalition games is consistent with the observations of the Anbar Awakening. The government was coercing and insurgents were channeling resulting in an alignment with the insurgency.

Strategic moves are determined through analysis of the game. Neither player has an advantage in a first move. There are no threats and the government has a promise. The government promises the population to channel *if* the population aligns with the government. The promise works because it helps the population and hurts[95] the government. However, does the population aligning with the GOI/US actually *hurt* the coalition? It does not, and therefore, utility based off desired outcomes would have better served the GOI/US in formulating their population control strategy.

2. Iteration Two (Early Transition)

The GOI/US was slow to realize the need to change their repression in the early transition timeframe.[96] However, AQI dramatically changed their repression strategy becoming increasingly coercive to maintain population control in the response to the threat posed by the election cycles of 2005. AQI viewed the civilian population as legitimate targets of coercion to prevent support for the democratic process. The change in AQI strategy resulted in a loss of depth in Anbar. The changes in strategy affect the organizational capacity based on the reaction of the population. Figure 16[97] is a subjective characterization of the organizational capacities derived from the case study. The breadth for GOI/US and AQI remained constant from timeframe one through the early transitional timeframe, but the depth of social control for AQI diminished.

[95] The government would prefer to utilize their advantage breadth to coerce the population into an alignment.

[96] Testing for longitudinal congruence with the actual case study of the Anbar Awakening.

[97] During the early transitional timeframe, it is assumed that breadth for either side remained relatively constant; however, the loss of AQI embeddedness (depth) is significant. The figure is viewed as constant sum; therefore, the assumption is the amount of depth lost by AQI was gained by GOI/US. This provided additional opportunities for the GOI/US to channel as a means of controlling the population.

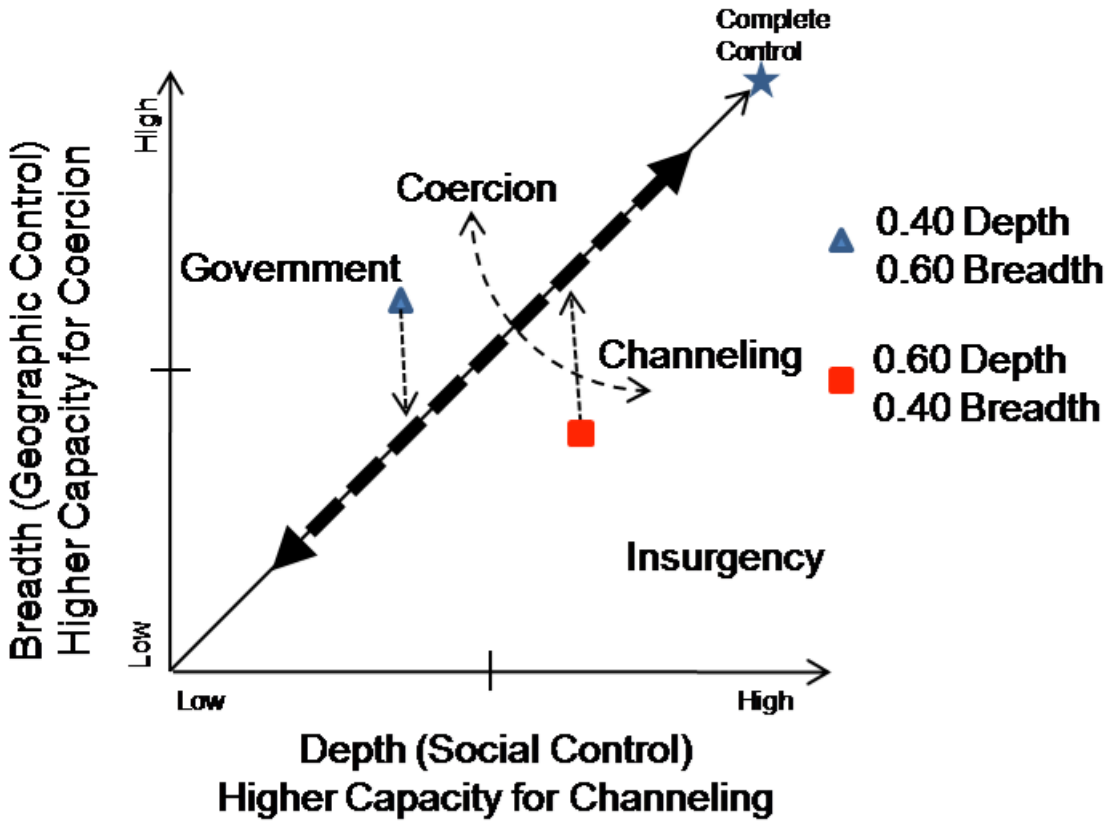

Figure 16. Organizational Capacity (Early Transitional Timeframe).

The ordinal utilities scale for iteration two changes to reflect AQI's preference based on desired outcome versus organizational capacity. Initially, AQI effectively coerced dissenters to maintain social control. As AQI became increasingly coercive, the pool of dissention increased; thus, requiring more coercion. The GOI/US continued to value coercive tactics over alignment outcomes. The population remained pragmatic and preferred the alignment with the greatest amount of channeling.

Outcomes	Government	Insurgency	Population
CCAG	8	2	1
CCAI	6	4	2
CChAG	7	6	5
CChAI	5	8	6
ChCAG	4	1	4
ChCAI	2	3	3
ChChAG	3	5	8
ChChAI	1	7	7

Table 10. Ordinal Utility Scales (Early Transitional Timeframe).

The second iteration coalition game utilizes the utility from Table 10. The game depicted in Figure 17 captures the shift from cell two of the strategic interaction model to cell one. The strategic interaction model predicts when both sides coerce, the population fragments, but the coalition game does not provide this option. Given a choice of alignment, considering this constraint, the population aligns with the insurgency.[98]

The alignment in Figure 17 is fragile based on the theoretical framework. In cell one, the government or insurgent can improve by changing strategy. In cell four, one side sees the futility of a competition of resources and deviate. The game fails to capture the increasing number of Anbaris looking for an alternative political order (fragment) to that provided by AQI. This population ultimately grew to provide the GOI/US the opportunity to channel the population away from AQI in iteration three.

[98] The 2x2x2 alignment game only captures two strategies for the population; however, in reality, the population has other options, such as fragmentation. With the population fragmented, it would not necessarily choose alignment with either side. Figure 17 captures a weaken population alignment with AQI. To achieve a desirable population alignment and more stable equilibrium, the GOI/US will have to explore channeling options. It is assumed that cell four and cell one in the strategic interaction model are the least stable situations.

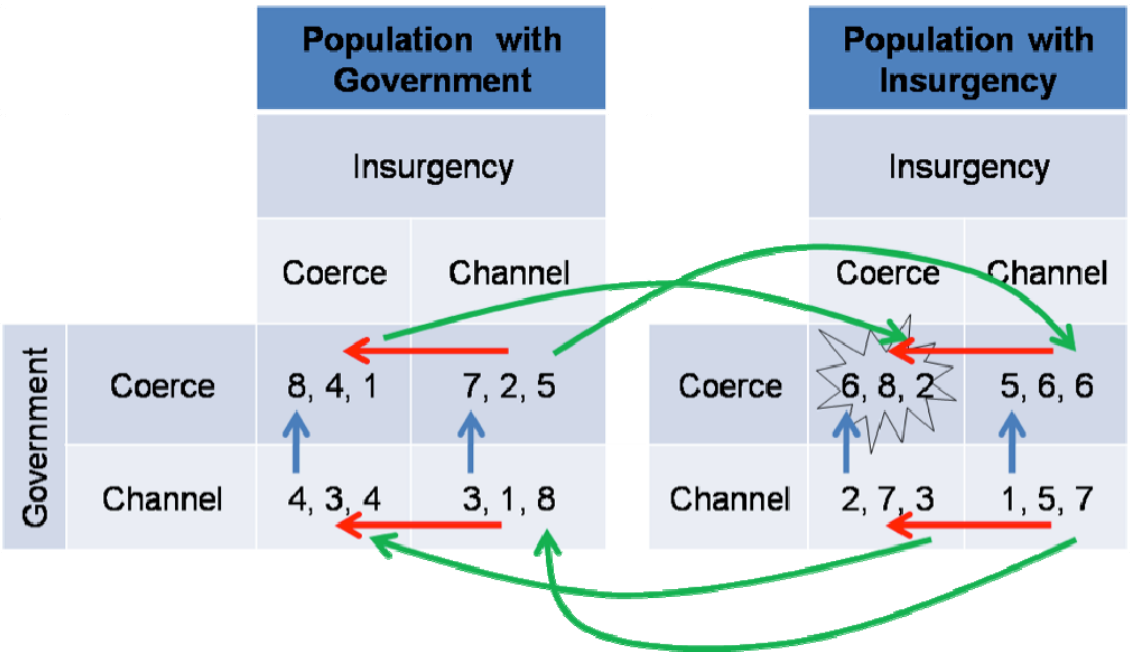

Figure 17. Alignment Game (Early Transitional Timeframe).

3. Iteration Three (Late Transition)

With AQI increasing control over all aspects of life, the tribal leaders began a search for an alternative. In September 2006, the Anbar Awakening formed in opposition to AQI and the tribal leaders, sought the support of the GOI/US. AQI responded with harsh coercion of the tribal leaders. At the same time, the GOI/US utilized the channeling opportunity to re-empower the tribal leaders influence over his people.

Figure 18 captures the organizational capacity of the government and the insurgents with the tribes aligned in support of the GOI/US. AQI suffered a

significant decline in depth and breadth. The increased GOI/US depth provided the opportunity to channel effectively as a means of controlling the population.[99]

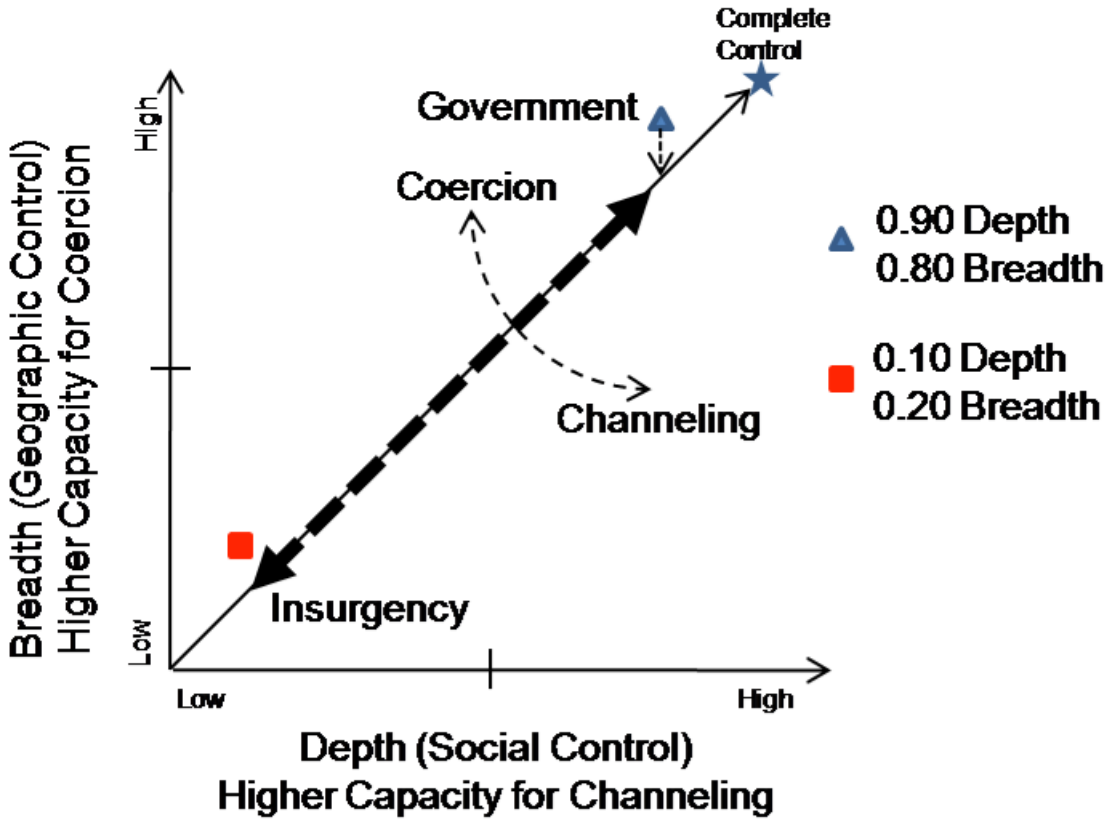

Figure 18. Organizational Capacity (Late Transitional Timeframe).

The GOI/US saw the benefits of the newly adopted population centric strategy. The GOI/US valued the tribes' alignment through whatever means available; however, it saw that channeling provided economy of force.

[99] The GOI/US began capitalizing on the channeling opportunities made partly possible through AQI's mistakes of assuming a coercive heavy strategy inconsistent with tribal societal norms. By channeling, the GOI/US not only dramatically increased its depth, but also increased its breadth by redirecting the tribes' efforts toward stability of the province. The tribes began targeting AQI and imposed negative social sanctions on targeting the GOI/US. The tribal security forces helped increase the breadth of GOI/US, but also enabled the security conditions to allow the GOI/US to spread the current force structure to multiple areas. The spreading of GOI/US security forces was a change from the previous forward operating base (FOB) centric employment of troops. This new employment of troops allowed GOI/US security forces to maintain a presence in previously denied territories and further channel the population away from the tribes.

Meanwhile, AQI continued to value the tribes' alignment through all available means and only increased its coercion. The tribes' remained pragmatic and placed the most value on an alignment providing the most benefit. The utility for the third iteration incorporates changes in strategy and organizational capacity, Table 11.

Outcomes	Government	Insurgency	Population
CCAG	8	2	1
CCAI	6	4	2
CChAG	7	6	5
CChAI	5	8	6
ChCAG	4	1	4
ChCAI	2	3	3
ChChAG	3	5	8
ChChAI	1	7	7

Table 11. Ordinal Utility Scales (Late Transitional Timeframe).

The GOI/US valued the outcome of population alignment and recognized the tribes' were responding favorably to channeling efforts. The shift in GOI/US strategy was an attempt to gain the population's alignment. Figure 19, demonstrates the shift from cell one of the strategic interaction model to cell three late in the transitional timeframe. Cell three of the strategic interaction model captures a population closely aligned with the government. Cell three of the strategic interaction model is more stable than cell one, but the strength of the alliance can modulate in time and space. This implies that each player must understand the impact of the interacting strategies and be willing to manipulate strategies to maintain population alignment.

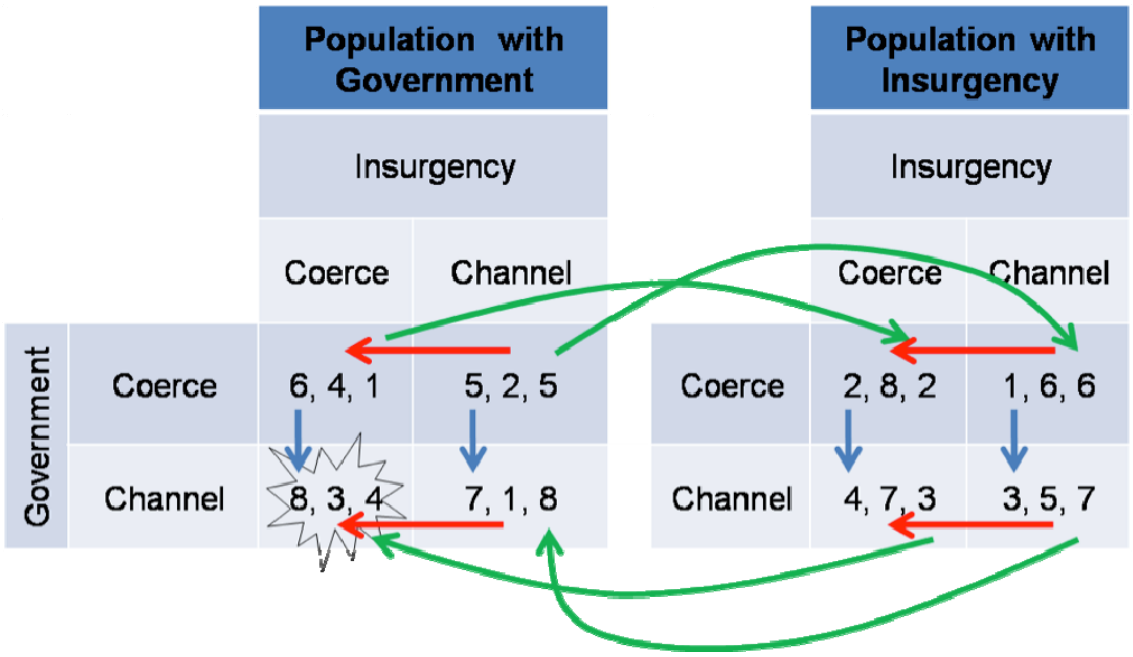

Figure 19. Alignment Game (Late Transitional Timeframe).

The iterated coalition games utilizing ordinal utility scales help illustrate the dynamics of each player's decision cycle. Additionally, the games highlight potential changes in strategy by understanding the strategic moves. However, the games are static and require multiple iterations with adjusted utility values to provide insight. The use of ordinal utility values provides insight to each player's preferences and ignores the potential disparity for each player regarding payoff. By understanding the behavior of each player in a given time and space and applying the theoretical framework, it was possible to model the likely outcomes during the different timeframes of the Anbar Awakening. Although interesting, its use is limited in projecting the model to different problem sets without prior extensive knowledge of each player's preferences. Next, the same game format is used, but to provide a better predictive tool, the utilities are changed to cardinal values and make the game constant sum.

C. CONSTANT SUM COALITION GAMES

To establish the constant sum game, it is necessary to agree upon what is *logical*.

Simply creating a two by two game out of the strategic interaction model immediately becomes problematic. Presenting three scenarios demonstrates how difficult it can be to provide a generic game theoretic approach to the strategic interaction model. Constant sum games require general assumptions for each player to determine how cardinal values affect the game. The first scenario assumes the government enjoys and understands its resource advantage, Figure 20. The second scenario assumes that the government does not take advantage of its resource advantage, placing higher utility on coercion/coercion than channeling/channeling,[100] Figure 21. Finally, the scenario where the government realizes its resource advantage *and* the insurgency realizes the futility of competing in battle of resources is considered, Figure 22.

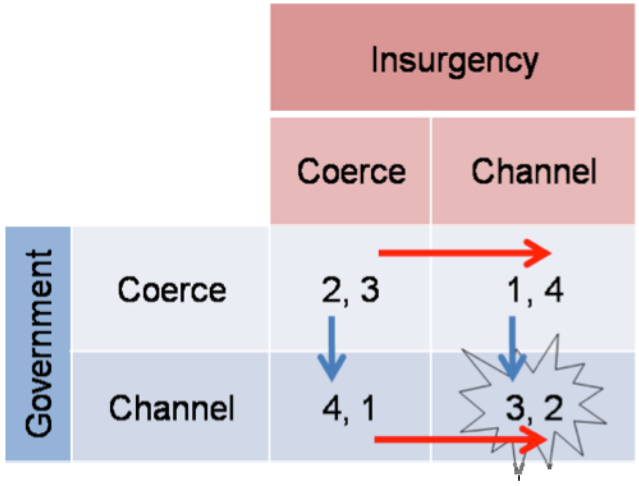

Figure 20. Government with Resource Advantage (2x2).

[100] This is probable if the government viewed coercion/coercion as a less resource intense fight than channel/channel.

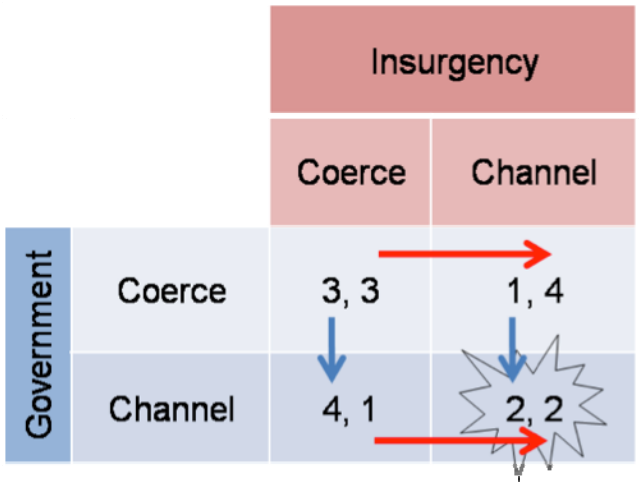

Figure 21. Government Prefers Coercion/Coercion to Channel/Channel (2x2).

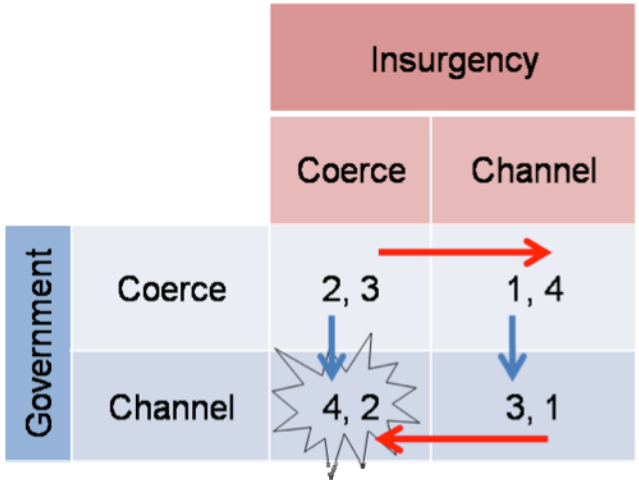

Figure 22. Insurgency Realizing Government's Resource Advantage (2x2).

Expanding[101] the constant sum coalition game, Figure 22, to a 2x2x2 determines the dynamics of potential coalitions and subsequent payoffs. For the following game, it is assumed that the government and insurgency place the highest utility on the interaction on a population alignment in their favor. The game also presumes that the government prefers the insurgency to coerce when the population alignment is with the insurgency.[102] Table 12 illustrates the ordinal utility scale for the initial game. By implementing the ordinal utility scale, equilibrium exists at channeling-coercion and the population aligns with the government, Figure 23.

Outcomes	Government	Insurgency	Population
CCAG	6	3	1
CCAI	3	7	2
CChAG	5	4	4
CChAI	1	8	6
ChCAG	8	2	5
ChCAI	4	6	3
ChChAG	7	1	8
ChChAI	2	5	7

Table 12. Ordinal Utility Scales (Initial Game).

[101] Expanded analysis of all three scenarios was performed. The sensitivity of likely coalitions was found to be negligible between the three scenarios; all three scenarios resulted in the same likely coalitions. Differences in the three scenarios were in the overall values of coalitions and payoffs. Also, expanding the games in Figures 20 and 21, weak equilibrium at channeling-channeling-aligned with government and channel-channel-aligned with insurgency was found. The equilibrium was weak because the population was indifferent between the two choices. The authors did not assume the government would win a battle of resources to provide fairness to the game and to assess likely coalitions with resources being equal. Scenario three, Figure 22, differed in that the constant sum game provided potential equilibrium at channel-coercion-aligned with government; coercion-coercion-aligned with insurgency and coercion-channeling-aligned with insurgency.

[102] Assumes the government has a better chance of effective channeling if insurgents are coercing.

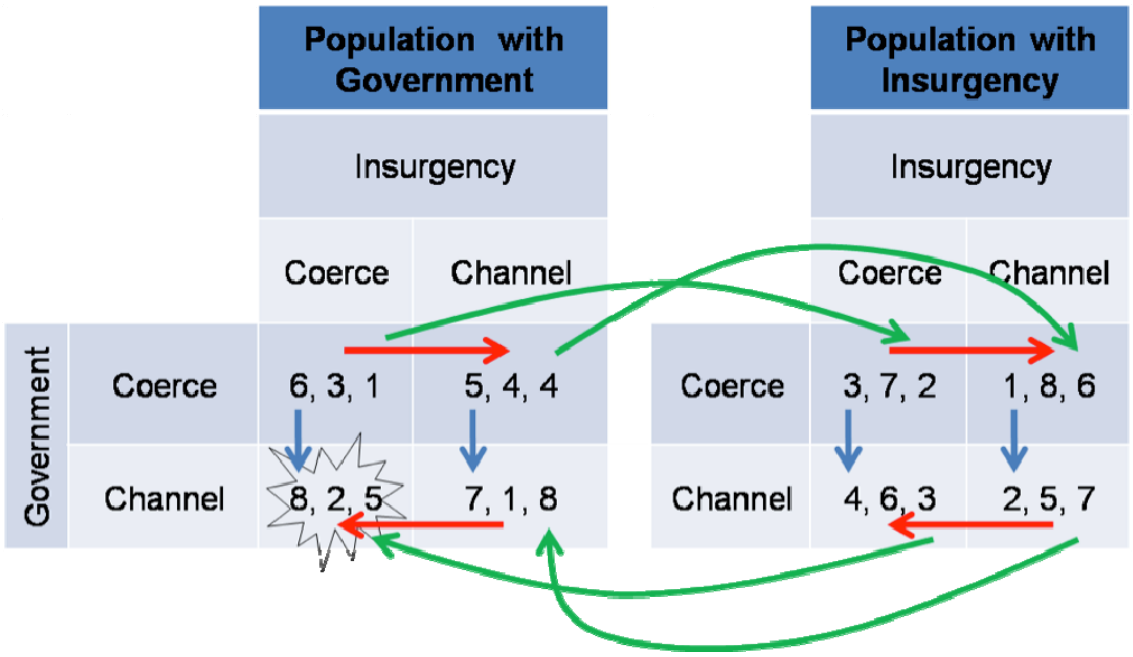

Figure 23. Initial Game (Ordinal Utility Values).

With an established equilibrium at channeling-coercion-population aligned with the government, the ordinal utility scales convert to cardinal utility scales. Cardinal values correspond to each player's ordinal rankings zero through four, Table 13. Cardinal values convert the game to constant sum, illustrated in Figure 24.

Conversion Table: Ordinal Rankings to Cardinal Values						
Cardinal Values		0	1	2	3	4
Ordinal Rankings	Government		1, 2	3, 4	5	6, 7, 8
	Insurgency	1	2		3, 4, 5	6, 7, 8
	Population		1	2, 3, 4	5, 6	7, 8

Table 13. Ordinal Rankings Converted to Cardinal Values (Initial Game).

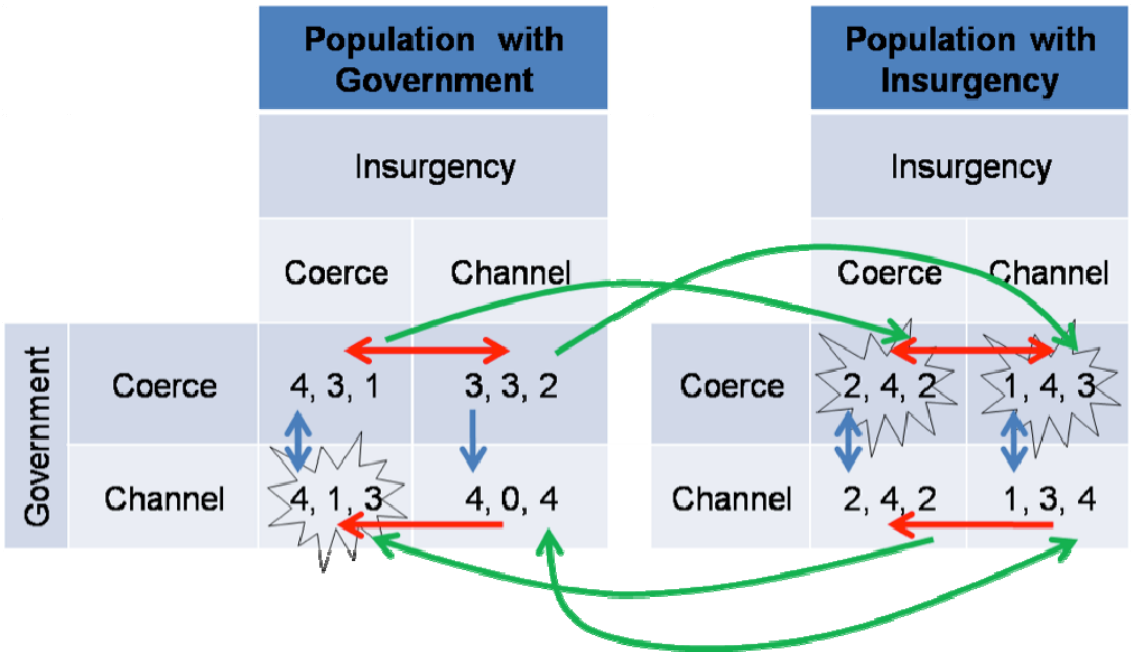

Figure 24. Initial Game as Constant Sum (Cardinal Utility Values).

The initial constant sum game, Figure 24, illustrates three potential equilibriums.[103] Further analysis of this game includes the payoffs for each player, value of coalitions, and potential coalitions, Table 14. Although the population is indifferent at channel-channel, the insurgents are unlikely to commit to a competition of resources resulting in the population ultimately preferring an alignment with the government. When comparing the values of the game, the insurgency prefers a coalition with the government rather than the population. A possible explanation is the insurgency is reluctant to invest the time and effort to gain popular support; instead, they would rather receive concessions from the government to achieve their goals. In reality, this is a very unlikely outcome because the government is better off acting alone than to provide concessions and align with the insurgency. Lastly, it is important to highlight the value of the

[103] Each of the equilibriums is weak because the equilibrium has at least one player who is indifferent in their strategy.

population aligning with the insurgency or the government as being relatively small. However, this game does not account for the mechanisms and processes that modulate the effects of interacting repression tactics.

Evaluation of Coalitions					
Government		Insurgency		Population	
Alone	2.92	w/Pop	2.16	w/Ins	2.92
w/Pop	4	Alone	1	w/Gov	3
w/Ins	2.86	w/Gov	3.45	Alone	1.69
Value of Game Coalitions					
Insurgency & Population vs. Government = 5.08					
Government & Population vs. Insurgency = 7					
Government & Insurgency vs. Population = 6.30					
Likely coalition is Government and Population. --With side payments it depends on negotiation.					

Table 14. Ordinal Rankings Converted to Cardinal Values (Initial Game).

The constant sum game contributes to validating the assumption that a resource advantage is helpful in a COIN environment. However, due to the game's static nature and subjectivity of the utility scales, it is difficult to provide predictive insight and potential strategy changes due to the existence of three weak equilibriums. "There are many things wrong with equilibrium analysis including the possibility that it oversimplifies by neglecting processes of adjustment, or exaggerates the prevalence of equilibrium by neglecting shifts in the parameters that determine equilibrium" (Schelling, 1978, p. 26). "Even when the conditions are right for equilibrium analysis, understanding the dynamics of the system may still be important" (Miller & Page, 2007, p. 83.). The requirement is for a model with less subjectivity and the ability to manipulate the mechanism

and processes that affect population alignment. “Computational models using agent-based objects are very natural way to explore the dynamic behavior of a system “(Miller & Page, 2007, p. 84). The model would assist in the development of potential strategies to achieve desired outcomes. This would assist in overcoming the heavy reliance on the application of logical utility scales, which is almost certainly arguable. An agent-based model is created utilizing the theoretical framework and insight provided by the previous games. To create a model that captures the uncertainty of real world situations, agents are assigned rules of behavior. By instituting agent-based modeling, it is possible to relax the need for completely rational actors and stop focusing on expected equilibriums; thus, letting the dynamics of the model compile outcomes within a prescribed behavioral space.

D. AGENT-BASED MODEL

“Many of our existing analytical tools avoid an emphasis on dynamic processes and focus on equilibrium states. The conditions that favor equilibrium analysis are likely the exception rather than the rule in many complex adaptive social systems” (Miller & Page, 2007, p. 83). An agent-based model[104] is created by coding the mechanisms and processes into a set of parameters that be can be controlled and manipulated to understand the conditions under which the population is more likely to align itself with the counterinsurgent. “The purpose of agent-based modeling[105] is to understand properties of complex social systems

[104] An agent-based model consists of individual agents, commonly implemented in software as objects. Agent objects have states and rules of behavior. Running such a model simply amounts to instantiating an agent population, letting the agents interact, and monitoring what happens (Axtell, 2000, p. 2).

[105] “This method of doing science can be contrasted with standard methods of induction and deduction. Induction is the discovery of patterns in empirical data. Deduction, on the other hand, involves specifying a set of axioms and proving consequences that can be derived from those assumptions. Agent-based modeling is a third way of doing science. Like deductions, it starts with a set of explicit assumptions. However, unlike deduction, it does not prove theorems. Instead, an agent-based model generates simulated data that can be analyzed inductively. Unlike typical induction, however, the simulated data come from a rigorously specified set of rules rather than direct measurement of the real world. Simulation is necessary because the interactions of adaptive agents typically lead to non-linear effects that are not amendable to deductive tools of formal mathematics” (Axelrod, 1997, pp. 3–6).

through the analysis of simulation" (Axelrod, 1997, p. 3). The model uses insight provided by process tracing the case study and the previous games. To create a model that captures the uncertainty of real world situations, agents are assigned rules of behavior. By instituting agent-based modeling, the need for completely rational actors is relaxed and focus shifts away from expected equilibriums. The model compiles dynamic outcomes of locally interacting agents within a prescribed behavioral space and tests the dependence of results against parameter settings and assumptions. The dynamic outcomes produce population alignment referred to as emergent properties[106] of the model.

The ABM is constructed to account for the different aspects of the theoretical framework within the model. "To create models that go beyond our initial understanding, we need to incorporate frameworks for emergence. That is, we need to have the underlying elements of the model flexible enough so that new, unanticipated features naturally arise within the model" (Miller & Page, 2007, p. 69). The model is designed to simulate an adaptive social system by creating agents with bounded rationality.[107] The model's potential provides external validity to the single case study. The ABM adds to the internal logic provided by the game theoretic framework, by demonstrating how the mechanisms and processes modulated population alignment over time. After examining each timeframe from the case study, the ABM demonstrates how population alignment modulates within the strategic interaction model, accounting for the three weak equilibria established in the constant sum game. "When the agents use adaptive rather than optimizing strategies, deducing the

[106] Emergence is a phenomenon whereby well-formulated aggregate behavior arises from localized, individual behavior. Moreover, such aggregate patterns should be immune to reasonable variations in the individual behavior (Miller & Page, 2007, p. 46).

[107] The simulation of an agent-based model is often the only viable way to study populations of agents who are adapter rather than fully rational (Axelrod, 1997, p. 4). The flexibility of computational tools make them well suited for considering models of boundedly rational agents who adapt their behavior (Miller & Page, 2007, p. 82).

consequences is often impossible; simulation becomes necessary" (Axelrod, 1997, p. 4). NetLogo[108] is the platform to create a modeling environment, which replicates a population's social environment.

The intent behind using ABM is to provide agents simple rules of behavior that produce complex results.[109] First, a world[110] is created by assigning ownership of the different parameters to the population (turtles) and the government and insurgency (patches). Figure 25 illustrates the ABM at work and serves as a visual reference for how the ABM works.

[108] NetLogo is a programmable modeling environment for simulating natural and social phenomena. It was authored by Uri Wilensky in 1999 and is in continuous development at the Center for Connected Learning and Computer-Based Modeling. NetLogo is written entirely in Java (version 1.4.1) and is provided free of charge from Northwestern University.

[109] The complexity of agent-based modeling should be in the simulated results, not in the assumptions of the model. If the goal is to deepen understanding of some fundamental process, then simplicity of the assumptions is important, and realistic representation of all the details of a particular setting is not. The realistic representation of many details is unnecessary and even counterproductive (Axelrod, 1997, pp. 5–6).

[110] The NetLogo world is a two dimensional world composed of agents. Agents are beings that can follow instructions. Each agent can execute its own activity, all simultaneously. In NetLogo, there are three types of agents: turtles, patches, and the observer. Turtles are agents that move around in the world. The world is two-dimensional and is divided into a grid of patches. Each patch is a square piece of "ground" over which turtles can move. The observer does not have a location. Consider it as looking out over the world of turtles and patches. When NetLogo starts up, there are no turtles yet. The observer can make new turtles. Patches can make new turtles as well. (Patches cannot move, but otherwise they are just as "alive" as turtles and the observer are.) Patches have coordinates. The patch in the center of the world has coordinates (0, 0). The patch's coordinates are called pxcor and pycor. Just like in the standard mathematical coordinate plane, pxcor increases when moving to the right and pycor increases when moving up. The total number of patches is determined by the settings screen-edge-x and screen-edge-y. When NetLogo starts up, both screen-edge-x and screen-edge-y are 17. This means that pxcor and pycor both range from -17 to 17, so there are 35 times 35, or 1,225 patches total. (It is possible to change the number of patches by editing NetLogo's Graphics window.) Turtles also have coordinates: xcor and ycor. A patch's coordinates are always integers, but a turtle's coordinates can have decimals. For speed, NetLogo always draws a turtle on-screen as if it were standing in the center of its patch; but in fact, the turtle can be positioned at any point within the patch. The world of patches is not bounded, but "wraps"—so when a turtle moves past the edge of the world, it disappears and reappears on the opposite edge. Every patch has the same number of "neighbor" patches—if a patch is on the edge of the world, then some of the "neighbors" are on the opposite edge.

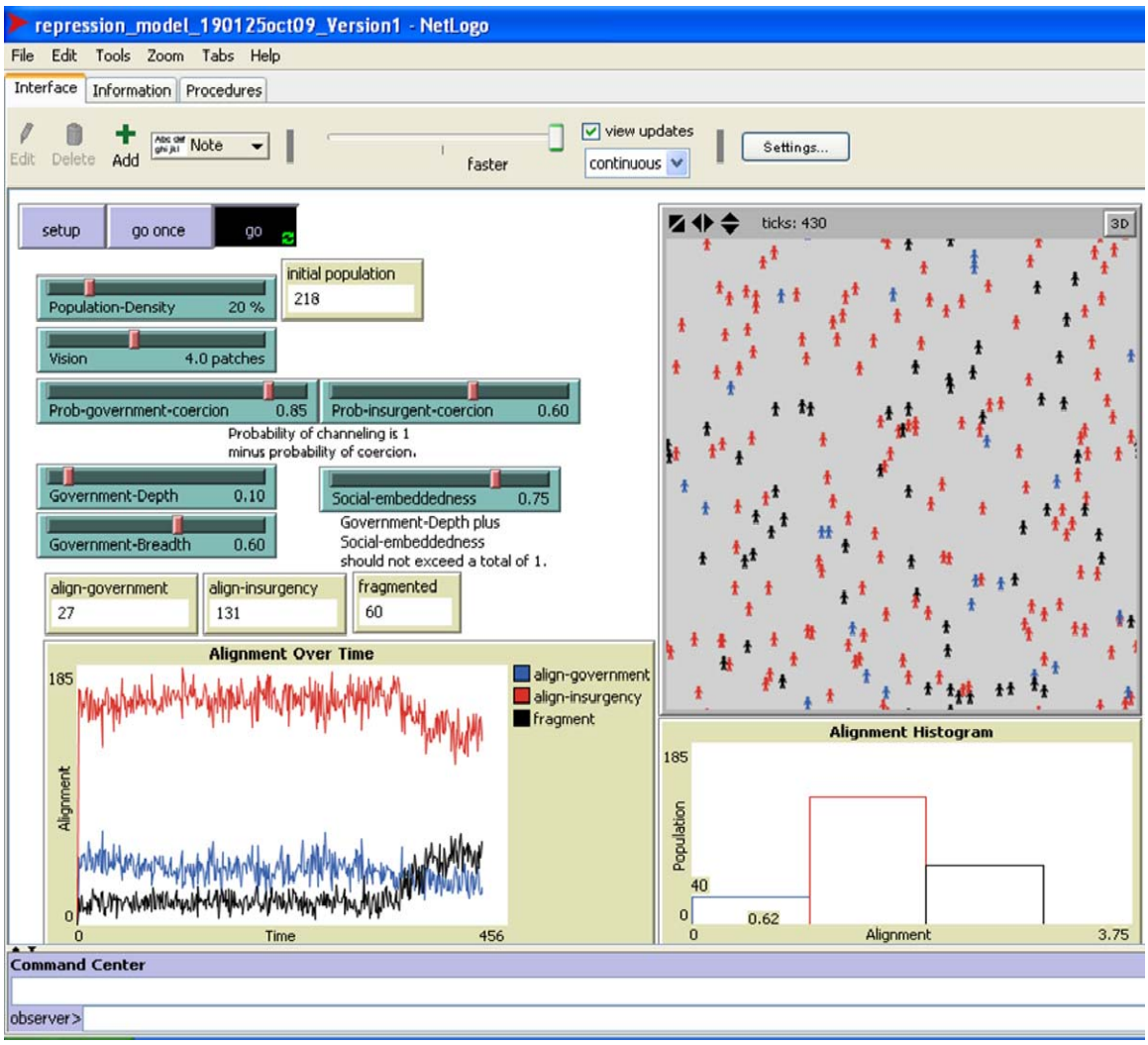

Figure 25. Strategic Interaction of Repression ABM

The agents represent the population and the environment around them influences their decisions.[111] The agent is assigned a random risk aversion at birth and chooses to align with the government, insurgency, or to fragment based on environmental surroundings. The vision slider[112] creates neighborhoods

[111] An important principle from social psychology is “social proof,” which applies especially to what people decide is correct behavior. As Cialdini explains, we view a behavior as more correct in a given situation to the degree that we see others performing it (Axelrod, 1997, p. 58).

[112] The slider moves left or right, is used to adjust parameter settings prior to beginning the model and can be adjusted during the run to observe effects of a parameter change. The vision slider allows each person (turtle) the ability to see the other people within the radius of zero to ten patches.

based on the population within the radius of each person's vision. The population density slider and the size of the world determine the size of population in the environment.

The static patches represent the government and insurgency. The actions of the government and insurgency are determined by adjusting the sliders for the probability of government and insurgent coercion,[113] social embeddedness of the insurgency, and government depth[114] and breadth. The parameters are randomly assigned to the patches based on the probabilities of the respective sliders. Each patch represents the government and insurgent effects on the environment because of the interaction of repression tactics and social embeddedness and organizational capacity of the government capture the effects of the mechanisms and processes. The ABM utilizes a stochastic process to capture the effects of the mechanisms and processes that modulate population alignment.

Each agent performs three steps to determine his alignment decision. The example below illustrates how an agent aligning government determines his decision. Similar logic is used to determine how agents arrive at a decision to align with the insurgent or fragment. Step 1. Each agent first determines his alignment preference based on the interaction of repression strategies, insurgent social embeddedness, and individual risk aversion. Step 2. Once an agent determines his alignment preference, the agent then determines the cost and benefit of aligning with his preference.

[113] The model assumes the probability of channeling is the inverse of the parameter setting for the government and insurgent probability of coercion equal to one. For example, if the probability of government coercion is set on 0.20, then the government probability of channeling is 0.80.

[114] Parameter settings of insurgent social embeddedness and government depth should not exceed one when added together.

An agent that is leaning towards the government:

Cost of Aligning Government = λ

Benefit of Aligning Government = β

Probability of Government Coercion = α

Probability of Government Channeling = μ

Probability of Insurgent Coercion = ξ

Government Depth = ϕ

Determining Cost:

Random number is generated = ω

If $\omega < \phi$, then set $\lambda = \xi / 2$

If $\omega > \phi$, then set $\lambda = (\alpha + \xi) / 2$

Determining Benefit:

Random number is generated = ρ

If $\rho < \phi$, then set $\beta = \mu$

If $\rho > \phi$, then set $\beta = 0$ (zero)

Step 3. Once the cost and benefit of alignment is established, the agent determines the fitness of his decision, the weight of his neighborhood, and enters a random lottery to determine alignment decision.

Cost of Aligning Government = λ

Benefit of Aligning Government = β

Number of People in the Neighborhood Leaning Government = η

Total Number of People in the Neighborhood = τ

Fitness of Aligning Government = Ω

Fitness of Aligning Insurgent = Σ

Fitness of Fragmenting = Y

Weight of Aligning Government = Γ

Weight of Aligning Insurgent = I

Weight of Fragmenting = K

Determining Fitness:

$$\Omega = \left(1 - \lambda + \left(\eta / \tau * \beta\right)\right) * \eta$$

Determining Weight:

$$\Gamma = \Omega / \Omega + \Sigma + Y$$

Performing Lottery:

Random number is generated = δ

If $\delta < \Gamma$, then set Population Color *Blue*; Aligned Government

If $\delta > (\Gamma + K)$, then set Population Color *Red*; Aligned Insurgent

If $\delta > \Gamma$ and $< (\Gamma + K)$, then set Population Color *Black*; Fragmented

The assignment of cost and benefit for each alignment choice is arguable. Not every aspect of a person's decision process is addressed when assigning cost and benefit to a particular alignment choice. However, the thought process provides a consistent approach to incorporate the interaction of repression tactics, depth, breadth, and social embeddedness to the model. Additionally, the randomness attempts to capture the fact that every person evaluates cost and benefit on an individual basis.

After initializing the ABM,[115] the population moves one step in random directions and makes an initial decision based on the interaction of repression tactics, risk aversion, and the social embeddedness of the insurgency. The initial decision forces the agents to lean[116] toward aligning with the government, insurgent, or fragmenting. With an initial preference, the agent determines his *fitness*[117] based on number of like-minded agents in his neighborhood. "The goals or purposes or objectives relate directly to other people and their behavior,

[115] The ABM initializes by adjusting the parameters and pressing the *setup* button. After pressing the *setup* button, the world is populated according to the *population density* slider and the population appears as *green* people. Concurrently, the government and insurgency, in the form of patches, establish the actions of the remaining parameters and the environment is created. Pressing the *go-once* button runs the ABM one time period; pressing *go* runs the model continuously and time periods are recorded.

[116] *Lean* does not equal *align with*. At this point, the person has only determined a preference, but has not chosen to align with either side until he factors in the cost, benefit, and what everyone else is doing in his neighborhood.

[117] The *fitness* is the initial step in determining the effect of bounded rationality. The *fitness* measures the cost and benefit of the persons with the same preference in the neighborhood. The assumption is that people faced with difficult problems and finite time attempt to simplify the problem and are influenced by the decisions of the people around them.

or are constrained by an environment that consists of other people who are pursuing their goals or their purposes or their objectives. What we typically have is a mode of contingent behavior- behavior that depends on what others are doing" (Schelling, 1978, p. 17). The fitness determines the *weight*[118] of the neighborhood based on the number of agents with the same preference. In essence, the fitness captures the social incentives for the agents to change their alignment preferences. To keep the social incentives stochastic,[119] the *weight* of the neighborhood enters a random *lottery*[120] to determine alignment with the government, insurgent, or to fragment.[121]

1. Testing for Congruence against the Anbar Awakening

The typology chapter discusses how the population alignment modulates by way of the mechanisms and processes. However, the game theoretic treatment of strategic interaction does not fully capture the dynamic modulation and spatial relationships of the population, government, and insurgent alignments. The ABM models the modulation of population alignment based on the effects of the changing parameters[122] and provides the data necessary to produce recognizable patterns. Figure 26 illustrates the parameter settings for analyzing the case study, longitudinal.

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[118] The *weight* provides a percentage of same preference persons in a given neighborhood.

[119] Since the social nature of alignment preferences is rarely deterministic, a degree of randomness is introduced to the impact of the neighborhood on individual decisions.

[120] The *lottery* is a simplified, but randomized approach for each person to determine alignment choices based on the social environment of the neighborhood.

[121] In the ABM, alignment with the government is blue, insurgent is red, and fragment is black. Since agents follow behavior rules, the sense is that they are quite homogeneous. However, two distinct agents placed in identical environments will generally not respond (behave) in the same way; that is, move to the same location (Epstein & Axtell, 1996, p. 25).

[122] A *Behavior Space* experiment is conducted to test parameter settings observed in the case study of the Anbar Awakening. Behavior Space is a software tool integrated with NetLogo making it possible to perform experiments with models. It runs a model many times, systematically varying the model's settings and recording the results of each model run. This process is sometimes called "parameter sweeping," allowing for the exploration of the model's "space" of possible behaviors and determining which combinations of settings cause the behaviors of interest (Wilensky, 1999).

	Time Period		
Parameters	**2003-2006**	**Early Transition**	**Late Transition**
Vision	5	5	5
Density	50	50	50
Government Coercion	.8, .9, 1	.8, .9, 1	.2, .3, .4
Insurgent Coercion	0, .1, .2	.4, .5, .6	.8, .9, 1
Insurgent Social Embeddedness	.8, .9, 1	.5, .6, .7	0, .1, .2
Government Depth	0, .1, .2	.3, .4, .5	.8, .9, 1
Government Breadth	.5, .6, .7	.5, .6	.7, .8, .9

Figure 26. Parameter Settings for Examining the Anbar Awakening.

The ABM produces data congruent with empirical observations, even with the assumptions relaxed. To examine each timeframe individually, the depth and social embeddedness are held constant.[123] Each timeframe has a population alignment percentage chart and parameter effects diagram. The population percentage chart provides the alignment results based on social embeddedness and depth remaining constant and sweeping the remaining parameters. The parameter effects diagram illustrates how the remaining parameters modulate population alignment.

[123] The depth and social embedded numbers utilized for the ordinal scale examination of the timeframes in the game theoretic framework were held constant to show how the population alignment could modulate significantly with small changes to parameter settings.

a. Timeframe One

Figure 27 shows the average population alignment data obtained by holding government depth to 0.1 and social embeddedness to 0.9 and allowing the other parameters to vary.[124] The result is congruent with the empirical observations derived from process tracing and from the ordinal scale game theoretic framework.

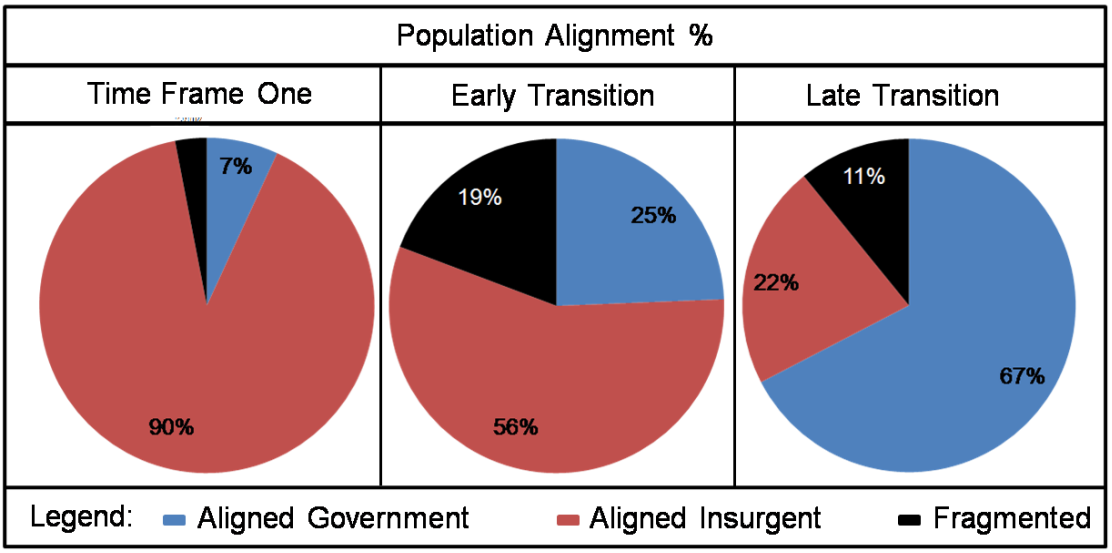

Figure 27. ABM Produced Alignment Percentages.

Figure 28 illustrates how the different parameter settings account for the modulation of population alignment when the government depth and insurgent social embeddedness remain constant.

[124] The model's results are highly robust. That is, it is possible to reject the null hypothesis that the macro structure of alignment is affected by random permutation because all other parameters are allowed to vary.

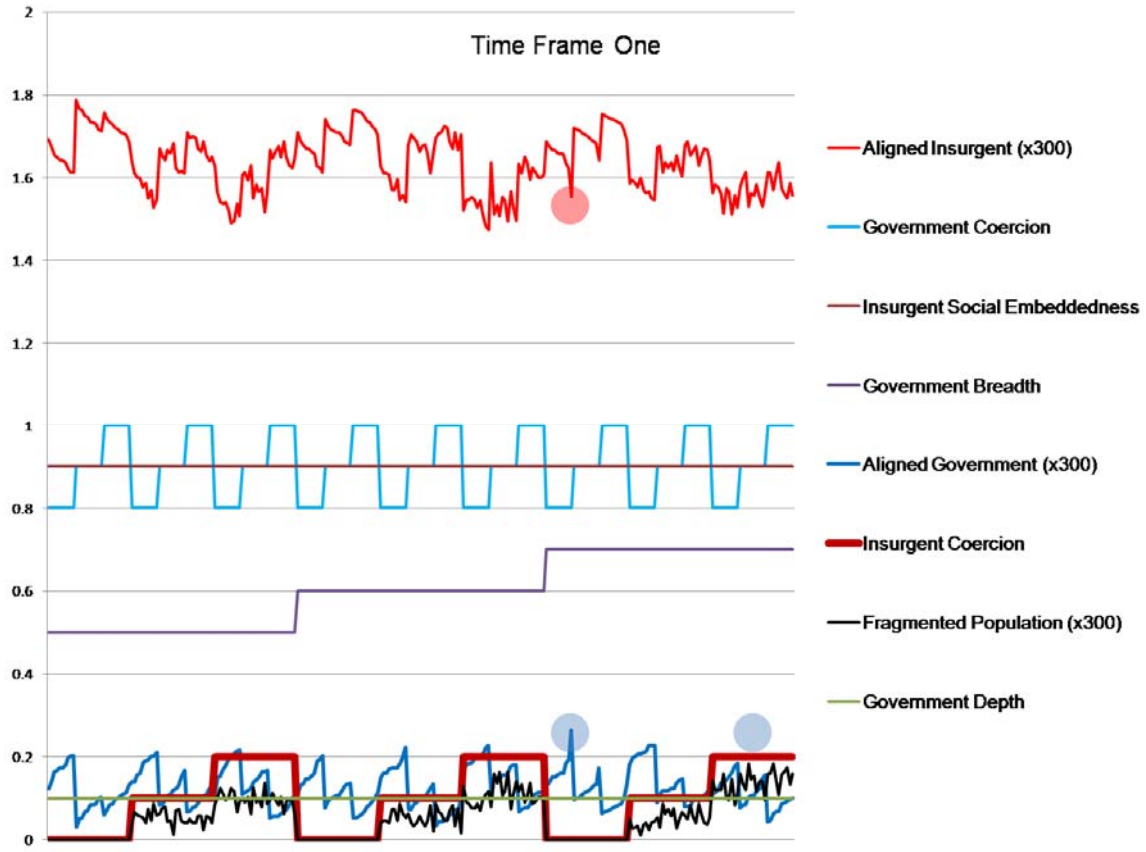

Figure 28. Effects of Changing Parameters (Timeframe One).

The shaded red/blue circles highlight patterns produced by the model. In timeframe one, the government peaks in population alignment when they lessen their coercion and the peaks are slightly higher as the insurgency increases[125] its amount of coercion. Additionally, the insurgency experiences a downward trend in population alignment as the government gains breadth. The additional breadth provides the government the ability to influence more of the population. The gain in breadth does not necessarily demonstrate a gain in population alignment for the government; instead, it shows more of the population fragmenting because of the government's greater effect with its coercion.

[125] Except in the case where GOI/US increases to 70% breadth. In this case, the government does best when its coercion is at the lowest and the insurgent coercion is lowest. However, with 70% breadth, when the insurgents increase to 20% coercion, GOI does not peak; instead, the population fragments at a higher rate.

b. Early Transition Timeframe

During the early transition timeframe, the case study revealed a population increasingly disenfranchised with the political order provided by AQI. The frustrated tribes began searching for an alternative political order; however, the GOI/US were still placing higher utility on a coercive repression strategy. The results of process tracing and the game theoretic models indicate the tribes were breaking ties with AQI, but were skeptical of aligning with the GOI/US. The interaction of repression strategies and the mechanisms and processes produced a fragmented population. Figure 27 illustrates the ABM modeled alignment percentages. The data produced by the ABM is congruent with the typological theory, game theory, and empirical observations. The depth and social embeddedness parameter settings, 0.4 and 0.6, for the early transition were adjusted to the empirical observations and remain constant, Figure 29.

Figure 27 illustrates an increased population aligned with the government, as well as a larger fragmented population. The fragmented population should be intuitive based on the government maintaining a high level of coercion and the insurgency beginning to increase its coercive tactics. However, less intuitive is how the government maintained the same level of coercion, but realized a growth in population alignment. Figure 29 shows how the different mechanisms and processes (parameter settings) can significantly modulate population alignment.

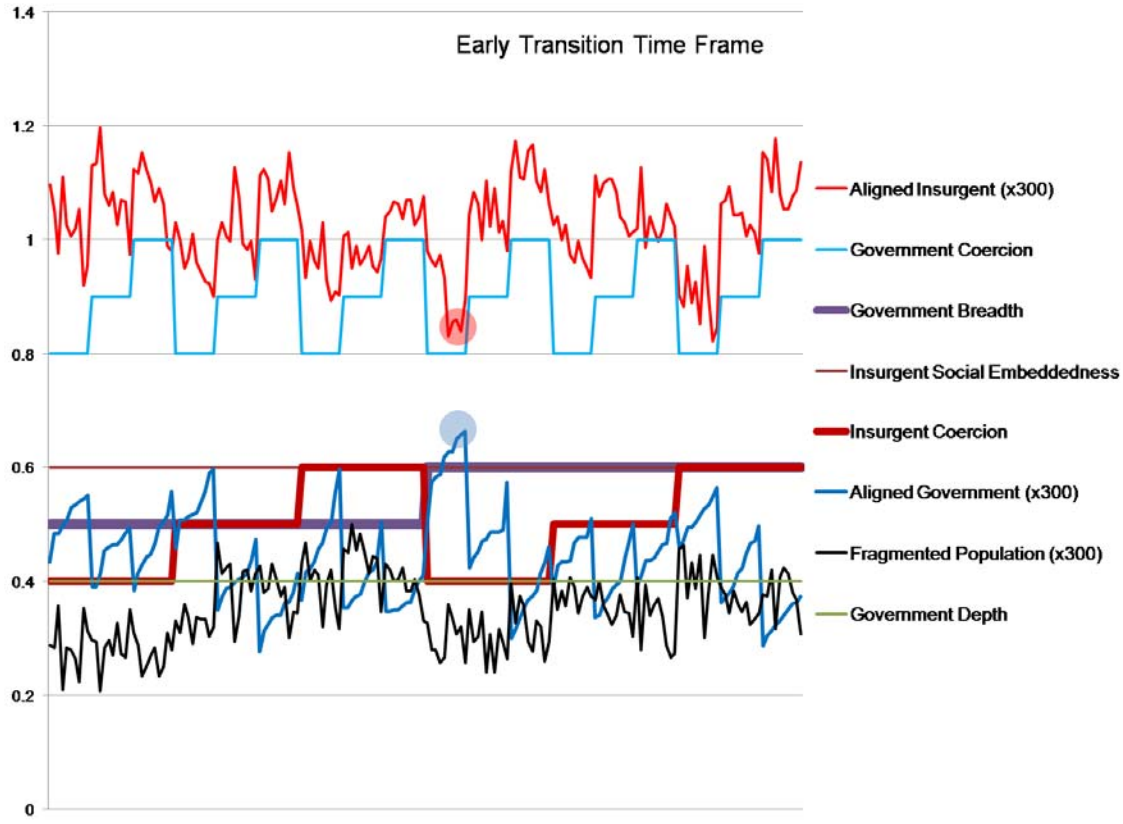

Figure 29. Effects of Changing Parameters (Timeframe One).

As the patterns develop,[126] the government can decrease the amount of people aligned with the insurgency by utilizing even small amounts of channeling. The government manages its greatest population alignment when it uses the least amount of coercion, has greater depth, *and* the insurgent uses the least amount of coercion. Under such conditions, the government can induce the insurgent to resort to coercion to maintain its control of the population. On the other hand, the insurgent can attempt to decrease the population aligned with the government, increasing the size of the fragmented population, by increasing its

[126] The analysis aims to demonstrate the potential of the model while testing for congruence. The data produced from the model can be analyzed many ways and more tests can be run to add robustness. However, in the above case, fragment is highest when GOI/US uses 90% coercion. At 80% coercion, the government increases; at 90% coercion, fragmentation increases; and at 100% coercion, the insurgency increases. Additionally, with breadth increasing from 40% to 50%, the GOI/US enjoys a 2.3% increase of overall alignment (in Anbar this would equate to an increase of 30,000 people).

coercive tactics. The insurgency reduced the population aligned with the government, but created an opportunity for the government to win alignment though channeling an increased pool of disenfranchised people (fragmented).

c. Late Transition Timeframe

In the late transition timeframe, the GOI/US capitalized on the opportunity to channel the increased fragmented population. Figure 27 captures the data produced from the ABM illustrating the alignment percentage as of late transition. Consistent with the previous examinations, all parameters in Figure 30 are swept while holding depth and social embeddedness constant at 0.9 and 0.1, respectively.

The results are congruent[127] with the findings from empirical observations and the game theory models. Figure 30 illustrates a downward trend for insurgent alignment as the government increases breadth; the cost of being an insurgent is increasing. The government is increasing alignment as they increase coercion. With the increased depth gained late in the transition, the population perceives the government coercion against the insurgents legitimate. Additionally, when the government utilized the least amount of coercion (mostly channeling), the insurgents attempted to coerce the population into compliance, hoping to increase their alignment.

[127] It could be argued that the insurgent percentage is high; however, the two parameters are held constant for this examination. Additionally, Figure 31 demonstrates a very congruent analysis when all parameters from Figure 26 are allowed to run.

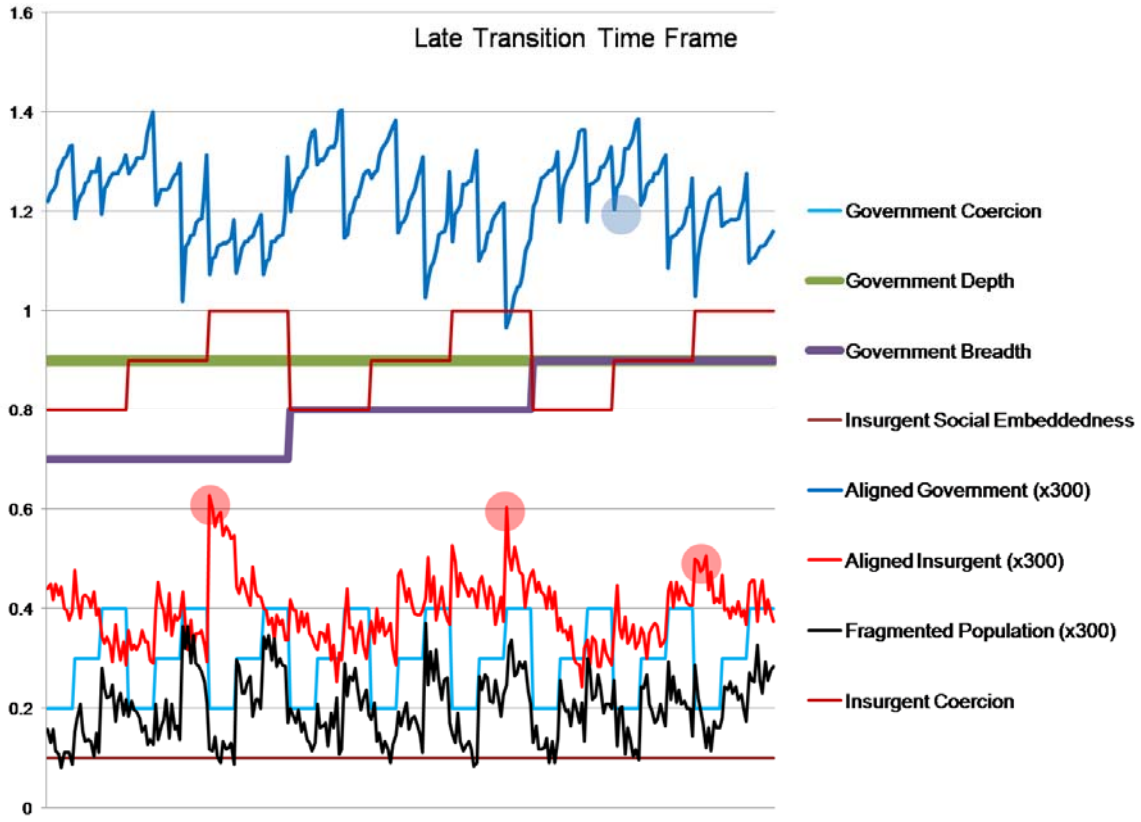

Figure 30. Effects of Changing Parameters (Late Transition).

d. Analysis of Alignment and Trends Longitudinally

During each timeframe, depth and social embeddedness remained constant, consistent with the game theoretical approach. Figure 31 illustrates the modulation in population alignment[128] by allowing all parameters from Figure 26 to vary.

[128] The population aligned government was sorted smallest to largest, while maintaining the integrity of the parameters achieving the population alignment number. By sorting the population-aligned government smallest to largest, it was possible to determine trends that modulated the population alignment over the entire time period.

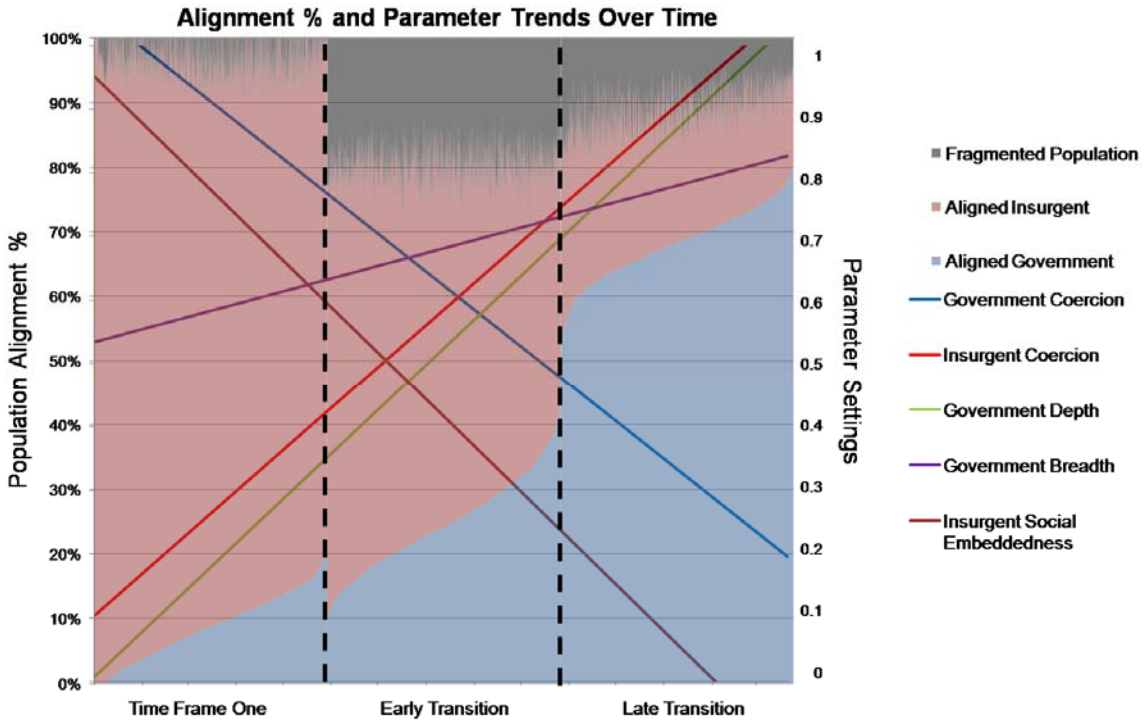

Figure 31. Effects and Trends of Changing Parameters on Population Alignment.

The population-aligned government was sorted smallest to largest,[129] while maintaining the integrity of the parameters achieving the population alignment number. Sorting the population-aligned government smallest to largest provided trends that modulated the population alignment over the entire time period, Figure 31. The trends suggest a change in repression strategies played a large role in the population's alignment with the government. However, the other parameters have a significant effect on the modulation of population alignment as determined by the individual analysis of each timeframe. Although, the trends provide insight to the mechanisms and processes that affect interacting repression strategies, the issue has not been completely addressed

[129] Sorting the governments alignment did not detract from the trends illustrated in Figure 31. For simplification, an assumption that the GOI/US increased population alignment on the macro level, results in a more visually appealing figure.

with the ABM. The coercion parameters are held constant to demonstrate the effects of the mechanisms and processes on the strategic interaction model.

2. Using the ABM to Understand the Strategic Interaction Model

The previous section has demonstrated that the interaction of repression tactics have a significant effect on population alignment. How the mechanisms and processes affect the link between interacting repression strategies and population alignment is illustrated next. Empirical observations derived from process tracing the case study revealed congruancy with the theoretical framework; however, channeling versus channeling was not observed at the macro level in the case study.

The game theoretic framework ended with a constant sum game resulting in three weak equilibriums; the exact same three cells observed in the case study. The ABM is now utilized to explain why the equilibria in game theory are weak, and what the optimal parameter settings are to achieve each cell of the strategic interaction model. Figure 32 provides the parmeter settings for the experiment.[130]

	Strategic Interaction Model Cells			
Parameters	Cell One Coercion-Coercion	Cell Two Coercion-Channel	Cell Three Channel-Coercion	Cell Four Channel-Channel
Vision	5	5	5	5
Density	50	50	50	50
Government Coercion	1	1	0	0
Insurgent Coercion	1	0	1	0
Insurgent Social Embeddedness	0, .2, .4, .6, .8, 1	0, .2, .4, .6, .8, 1	0, .2, .4, .6, .8, 1	0, .2, .4, .6, .8, 1
Government Depth	0, .2, .4, .6, .8, 1	0, .2, .4, .6, .8, 1	0, .2, .4, .6, .8, 1	0, .2, .4, .6, .8, 1
Government Breadth	0, .2, .4, .6, .8, 1	0, .2, .4, .6, .8, 1	0, .2, .4, .6, .8, 1	0, .2, .4, .6, .8, 1

Figure 32. Parameter Settings for the Strategic Interaction Model.

[130] Vision and density were held constant for this experiment. A separate experiment is ran to test vision and density, Figure 38. Initial experiments with vision and density result in an impact to the modulation of population alignment. However, it was determined that the impact did not detract from the findings of this experiment. Additionally, for the simplicity of illustrating the findings, the effects of breadth were not illustrated in the figures referring to the strategic interaction model. Instead, a separate illustration on the effects of breadth is found in Figure 37.

a. Cell One of the Strategic Interaction Model

Cell one of the strategic interaction model suggests a framenting population, aligning with neither the government nor the insurgency. As the government and insurgency rely on coercion, it forces all three parties farther away from each other. Figure 33 illustrates how coercion-coercion is modulated by the mechanisms and processes.

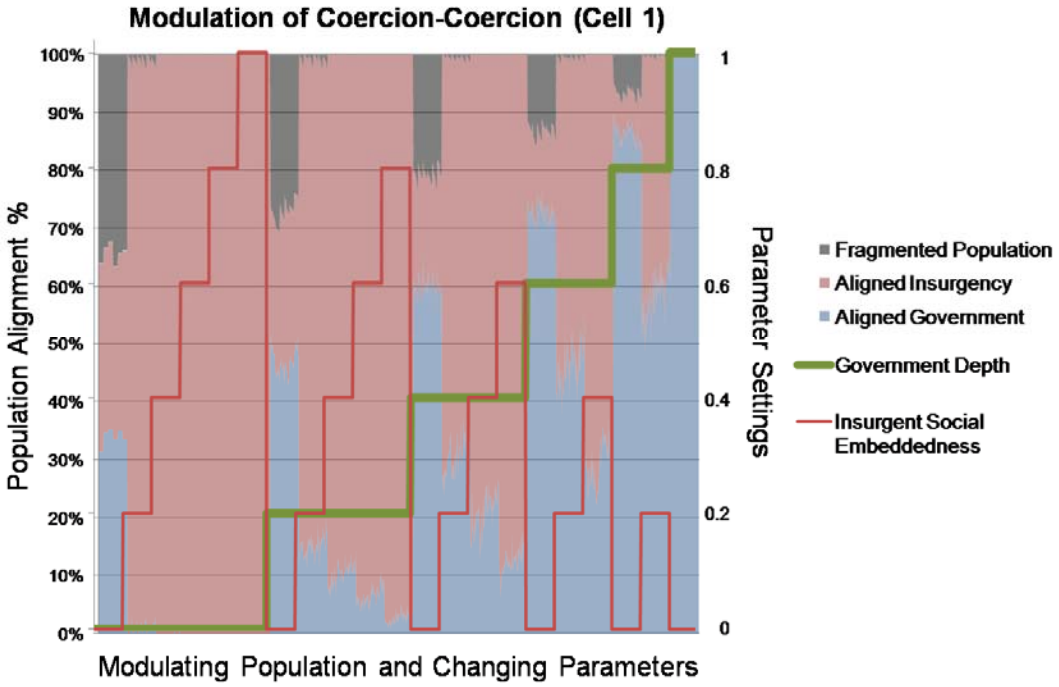

Figure 33. Modulation of Population Alignment Coercion-Coercion.

Additionally, the parameter settings with the most effect[131] on population alignment are overlaid on the population alignment chart. The AMB suggests the absence of government depth and insurgent social embeddedness corresponds to the largest fragmented population. Of the two, the absence of insurgent social embeddedness has the greatest affect *except* when the government has 100% depth. Moreover, the insurgency secures population

[131] Government depth and insurgent social embeddedness had the most significant effect on the modulation of population alignment throughout the experiment on the strategic interaction model.

alignment with little social embeddedness when the government has a total absence of depth. The ability for the insurgent to maintain population alignment utilizing coercion with little social embeddedness provides insight as to why insurgencies may be quick to resort to coercion. The ABM finds it difficult for the government to secure population alignment with coercion even with an insurgency having little social embeddedness, potentially explaining *why* coercion-coercion is a weak equilibrium.

b. Cell Two of the Strategic Interaction Model

Cell two of the strategic interaction model predicts a population aligned with the insurgent when the government is coercing and insurgent is channeling. Figure 34 demonstrates how the mechanisms and processes modulate population alignment from the insurgent to the government.

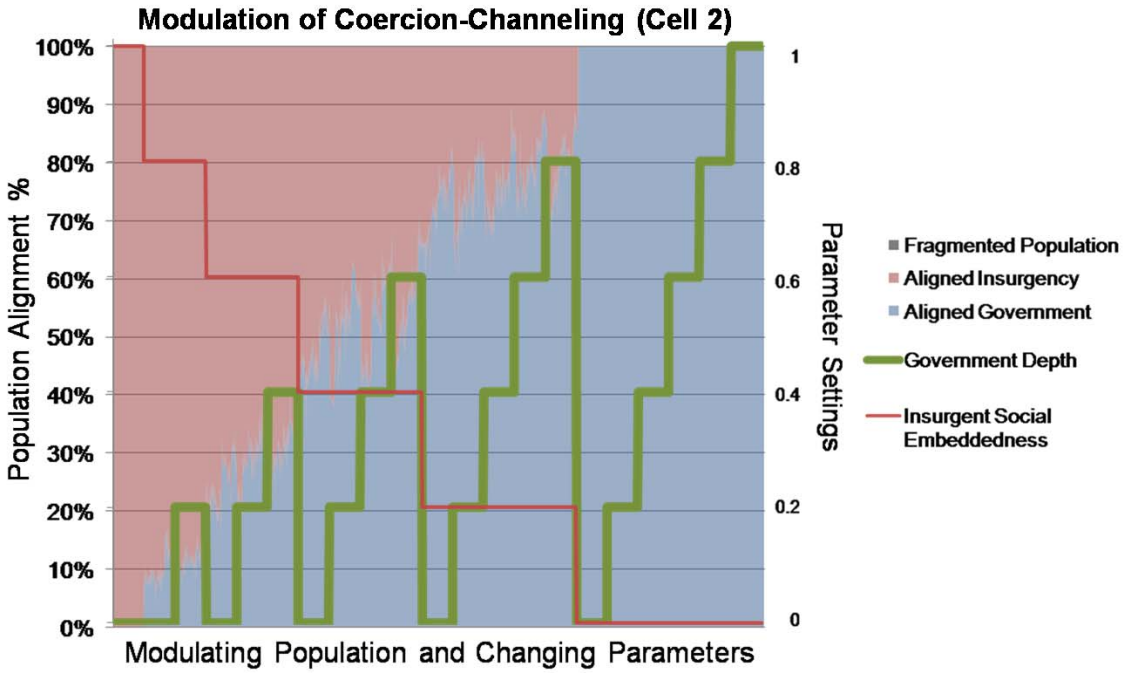

Figure 34. Modulation of Population Alignment Coercion-Channeling.

A totally embedded insurgency enjoys the greatest population alignment when it has the greatest amount of embeddedness. Also shown is the relationship between the mechanisms and processes and population alignment. The government can utilize coercion to its benefit, with a large amount of depth. When the insurgency falls to 40% embeddedness the fight for population alignment is very close with the government. This observation explains why the insurgent might shift from resource intensive channeling strategy to coercion. Referring back to Figure 33, the insurgent could improve alignment by changing to a coercive strategy. The weak equilibrium found at coercion-channeling, population aligned with the insurgency in the constant sum game, is explained by understanding the insurgent can improve by shifting to a coercive strategy, given social embeddedness falling below 40 percent.

c. Cell Three of the Strategic Interaction Model

The government channeling and insurgent coercing results in a population aligned with the government. Again, this is subject to the effects of the mechanisms and processes on the interaction of repression strategies. Figure 35 illustrates a modulating population alignment at channel-coerce.

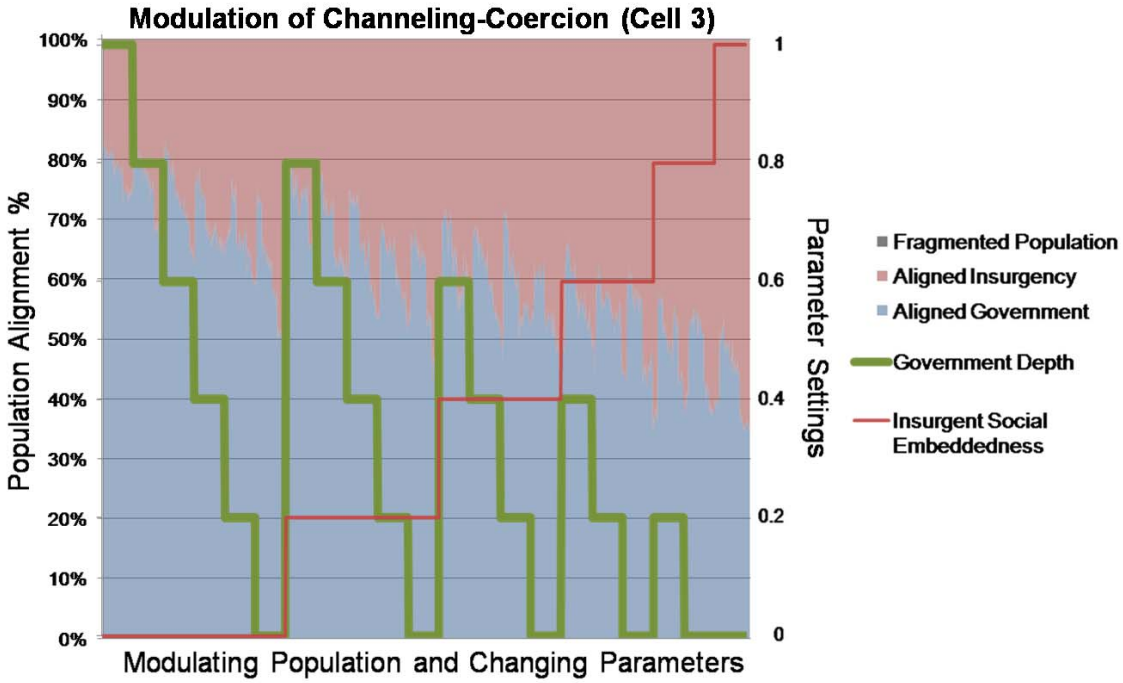

Figure 35. Modulation of Population Alignment Channeling-Coercion.

The population favors the government when it has the most depth and the insurgent is not embedded. Again, refer to Figure 34. The government improves by switching to a coercive strategy[132] when enjoying depth in excess of 80 percent. This observation helps provide insight as to why channel-coercion and population aligned with government is a weak equilibrium. The insurgent's social embeddedness can mitigate the expected effect of the government's channeling.

d. Cell Four of the Strategic Interaction Model

Channeling versus channeling was unobserved in the case study at the macro level. The game theoretic framework suggests no equilibrium exists for channel-channel (cell 4). The ABM illustrates the modulation of population alignment when the government and insurgent channel, Figure 36.

[132] This implies the government switches to coercion and eradicates the problem, and then returns back to channeling.

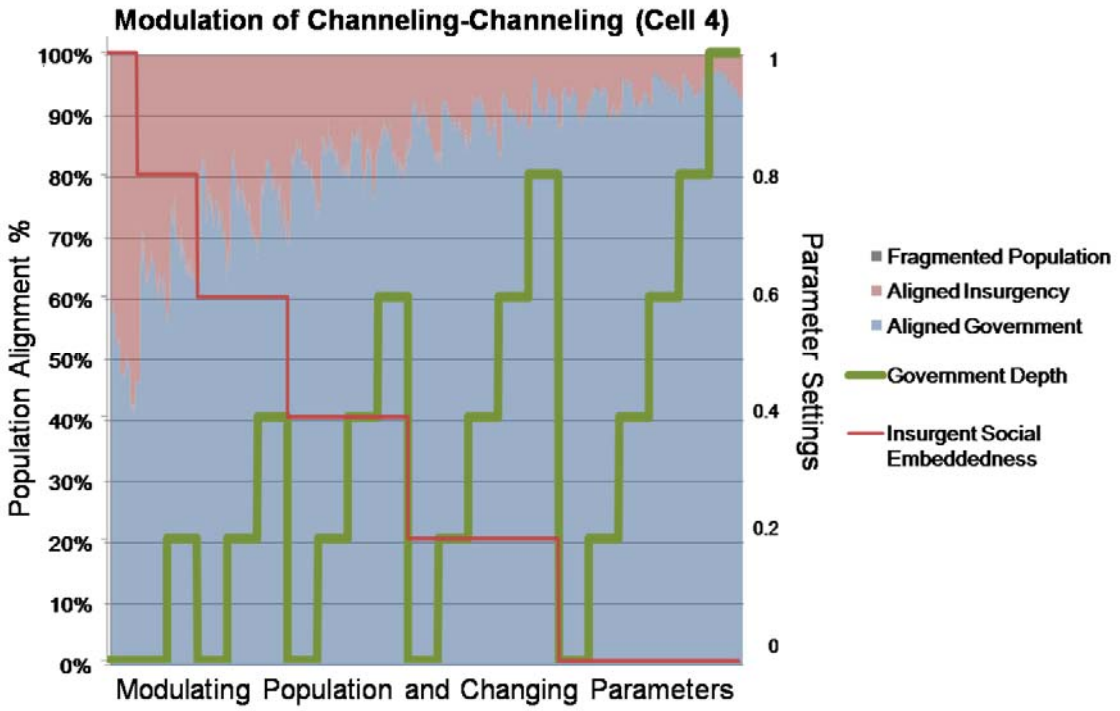

Figure 36. Modulation of Population Alignment Channeling-Channeling.

The ABM predicts a close battle for population alignment when the insurgent enjoys 100% social embeddedness, Figure 36. As the government increases its depth, the population aligns government at an exponential rate. This lends credibility to the assumption of the incumbent possessing the advantage in maintaining population alignment. Additionally, it provides insight to why channel-channel is not a likely equilibrium due to the insurgent's ability to improve population alignment in their favor using coercion and their difficulty competing with resources. It also suggests that channeling cannot be a universal strategy because it is predicated upon an important antecedent condition: the insurgent's social embeddedness must be compromised first for the counterinsurgent to win a resource game.

e. The Effect of Government Breadth

The preceding discussion on the modulation of population alignment as it pertains to the strategic interaction model focused primarily on

government depth and insurgent social embeddedness. However, Figure 37 depicts the role government breath plays in the modulation of population alignment as well.

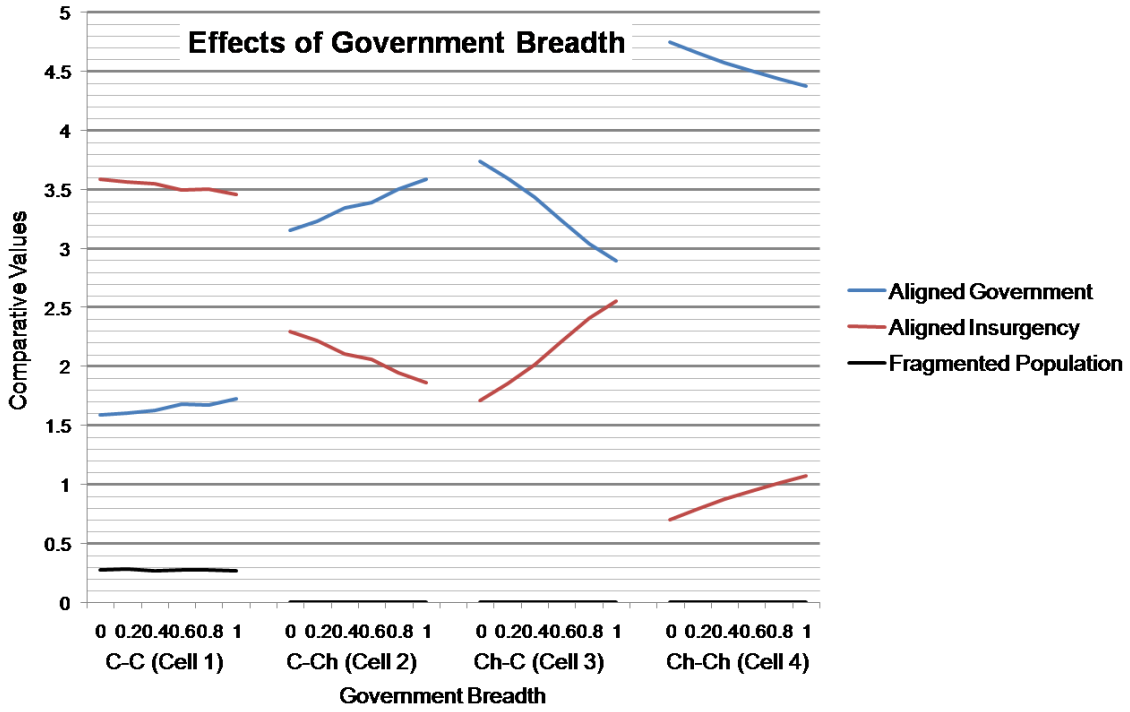

Figure 37. Effects of Breadth on Population Alignment.

The ABM suggests additional government breadth increases their population alignment when the government is utilizing coercion. The inverse relationship between the government's channeling and breadth suggests that channeling needs to be implemented locally (lack of breadth). This dynamic is also apparent in channeling and channeling where the government's increasing breadth is counterproductive to inducing a favorable alignment. While the government enjoys resource superiority in cell 4, increasing breadth dampens the advantage, highlighting the importance of locally implementing channeling. Another possible explanation for this observation is the lack of cost incurred by the insurgent when the government is channeling.

f. Testing Vision and Density

The effects of vision and density are determined with a separate experiment while holding all other parameters constant,[133] Figure 38.

Experimenting With Vision and Density	
Parameters	
Vision	**0, 2, 4, 6, 8, 10**
Density	**10, 30, 50, 70, 90**
Government Coercion	**.5**
Insurgent Coercion	**.5**
Insurgent Social Embeddedness	**.5**
Government Depth	**.5**
Government Breadth	**.5**

Figure 38. Parameter Settings for Testing Vision and Density.

The experiment suggests vision has an effect as the government improves when vision is at the lowest, Figure 39. A possible explanation is the government does not experience the effects of repression perceived as illegitimate when vision is at its lowest. In essence, the government's coercion is covert, and thus, not generating social incentives for the population to align with the insurgent. Conversely, the vision is not always in favor of the insurgent either. With the vision at six or higher, the insurgent experiences a loss in population alignment. A plausible explanation could be the requirement to maintain

[133] The parameter settings of the experiment have equal organizational capacity and opportunity to coerce or channel.

legitimacy with their constituency reduces their ability to coerce behavior. In other words, high degrees of vision increase the cost of using coercion to achieve a favorable alignment for both the government and insurgent. Although the effect of vision appears small, by using the comparative values,[134] vision can have a significant effect on population alignment.

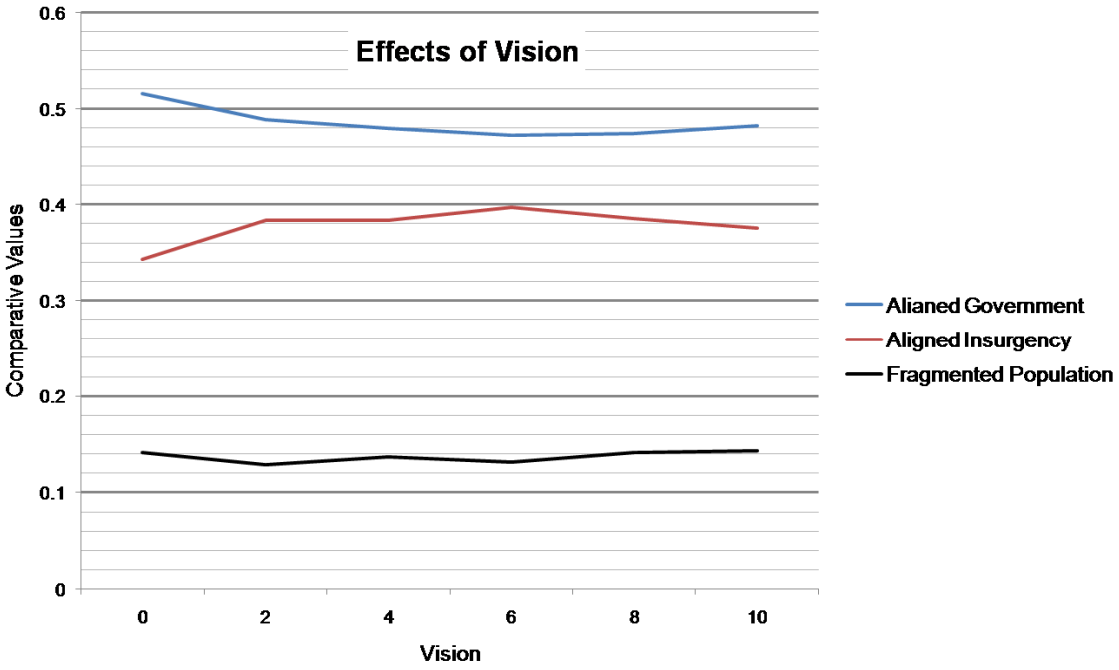

Figure 39. Trends for the Effects of Vision.

The ABM suggests population density is a factor in modulating population alignment, Figure 40. The effects appear small, but can have significant effects on how the population aligns. The insurgency appears to prosper in low-density populations, lending credibility to scholars supporting a rural approach to building an insurgency.

[134] Using the government's comparative values as an example against a population of 100,000 aligned with government. Government goes from 0.52 to 0.48 resulting in a loss of approximately 11,000 people; population aligned government drops to 98,916.

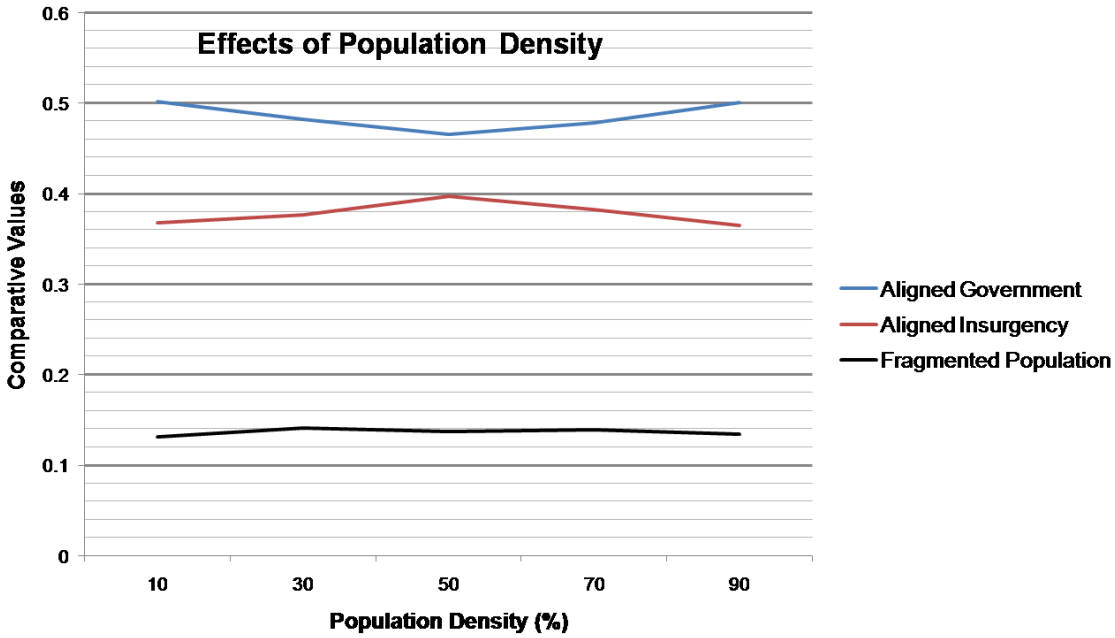

Figure 40. Trends for the effects of population density.

E. CONCLUSION

The ABM provides external validity to the theoretical framework by modeling possible outcomes for the unobserved cell four of the strategic interaction model. Additionally, the ABM provides insight to the three weak equilibria demonstrated in the constant sum game of the game theoretic framework. Even if the GOI/US would have chosen to channel earlier in the battle over Anbar, the ABM suggests the insurgency would have maintained the upper hand. The GOI/US lacked the amount of depth and breadth to gain significant population alignment. The weak equilibrium at coercion-channel and population aligned with the insurgency is explained by the insurgent's ability to shift to a coercive repression strategy and improving alignment.[135] AQI effectively performed a shift to coercion-coercion and population aligned with the insurgency early in the transition as illustrated by the second weak equilibrium in the constant sum game, Figure 24. This equilibrium is weak because the government

[135] By maintaining at least 40% social embeddedness, the insurgency does well at coercion-coercion, even when the government enjoys 60% depth.

can shift to channeling as demonstrated by Figure 35 and quickly gain alignment as depth is increased. When the government switches to channeling, this moves to the third weak equilibrium, channeling-coercion and population aligned with the government. This equilibrium is weak due to the government's need to shift to a coercive strategy at times to maintain maximum population alignment.

The ABM attempts to provide external validity and adds to the internal logic of the game theoretic framework.

> It is often wrongly assumed that the built-in nature of computational models somehow constrains the potential insights that such methods can generate. Agent-based models offer a new theoretical portal from which to explore complex adaptive social systems. Their advantages appear well suited, and perhaps even necessary, for helping us to understand better the types of problems that arise in the study of complex adaptive social systems. (Miller & Page, 2007, pp. 69, 78)

Assumptions were made for simplification to build the ABM to include the mechanisms and processes and allowing for common knowledge. Even after assumptions from the theoretical framework are relaxed, the model produces results congruent with the process tracing and game theoretic framework.

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V. CONCLUSION

> The Anbar experience illustrates that indigenous proxies can play a critical role in eradicating jihadist terrorist, appearing to vindicate the 'indirect approach' to counter-terrorism that was advocated in the most recent Quadrennial Defense Review. (Quadrennial Defense Review, 2006)

A. CONGRUENCE

This thesis has attempted to answer the following question; is there a relationship between the government and insurgent repression strategies and the population's alignment? To answer this question, the authors built a typology of repression for both the insurgent and counterinsurgent that are competing to control the population.

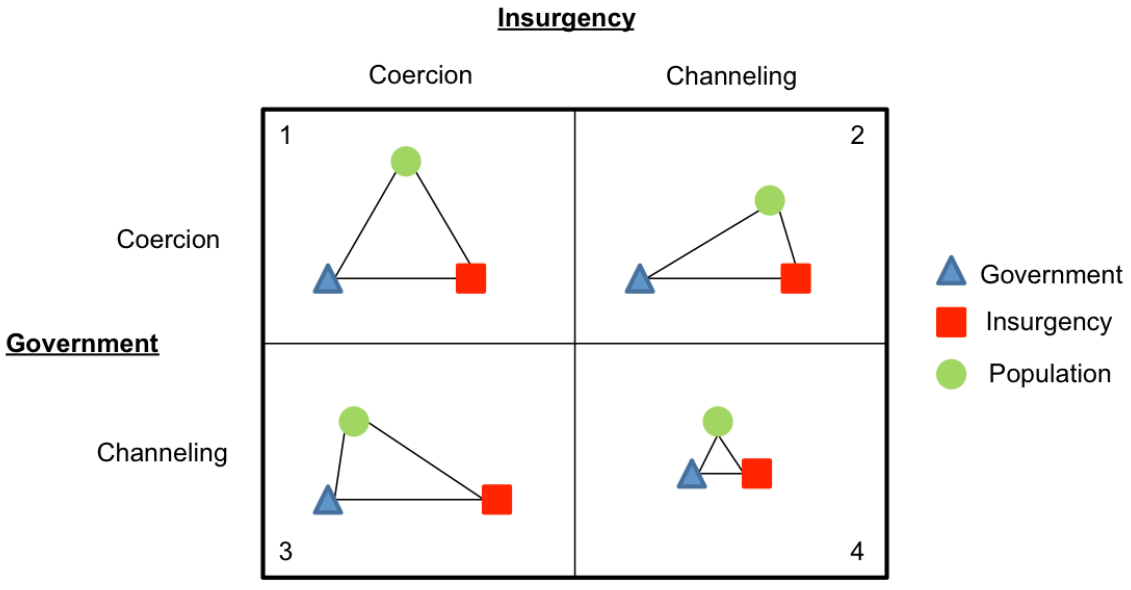

Figure 41. Strategic Interaction Model (McCormick, 2008).

The strategic interaction model is a graphical depiction of the four hypotheses.

- H_1 Government Coercion, Insurgent Coercion, Population Fragments Alliances
- H_2 Government Coercion, Insurgent Channeling, Population Aligns with Insurgents
- H_3 Government Channeling, Insurgent Coercion, Population Aligns with Government
- H_4 Government Channeling, Insurgent Channeling, Population Aligns with Incumbent

This thesis has demonstrated a great deal of congruence between the expected outcomes of the repression typology and the empirical observations made in Anbar case study, confirming the explanatory validity of the theory. From the fall of the Saddam Regime until 2005, the tribal population of Anbar aligned with the Sunni insurgency. The empirics demonstrate that the GOI/US utilized a coercive population control strategy, while the insurgency channeling efforts were winning the support of the tribal population, corresponding to cell three. With the elections of 2005, the insurgents, fearing a loss of their support base, opted for coercion to counter support for the democratic process. At the same time, the GOI/US maintained an indiscriminant, coercive counterinsurgency campaign. With both sides coercing, the tribal population fragmented, failing to support either the insurgency or the government. The author's theory predicted when both sides coerce; the population would fragment alliances and move away, representing cell one. Additionally, they predicted this outcome to be unsustainable due to one side realizing the opportunity created to forge an alignment with the population. Game theory further supports the prediction by demonstrating a lack of equilibrium in cell one. In cell one, either side can improve their payoff by deviating from coercion to channeling, moving to cell two or three.

With the alliance of AQI and the Tribes fragmented, the tribal leaders began to search for an alternative political order. The tribal leaders formed the Anbar Awakening and sought the support of the GOI/US. AQI responded by using increasing coercive measures. Recognizing the opportunity, the GOI/US began to channel through the tribal leaders, shifting the alliance of the tribal

members from AQI to the tribes; thus, aligned with the government. The observations support the hypothesis of the government channeling and the insurgents coercing resulting in an alignment as depicted in cell three.

B. LIMITATIONS

The limitations to this thesis are in two major areas: single case study and lack of discussion on ideological and/or cultural dimensions. The research design has captured and explained the longitudinal variation of the dependent variable (population alignment), but lacks the cross sectional dimension of multiple case studies. Therefore, the subjectivity of the predictions is arguable. In the case study, an absence of empirical evidence exists that corresponds to cell four. Game theory suggests the population is indifferent when the strategies are channel-channel. This supports the assumptions of the population aligning with incumbent and competitions of resources. In addition, game theory indicates Cells 2 and 3 are *weak* equilibriums; the insurgency or government, respectively, must make a strategic mistake to lose population alignment. On the other hand, game theory fails to predict equilibrium at channel-channel. This is likely a result of one side realizing they cannot win a competition of resources and consequently deviating to coercion.

Realizing the limitations of a single case study, game theory and agent-based modeling was applied to add external validity to the modeled predictions. Ideological and cultural dimensions affect the mechanisms and processes that account for the shifting population alignment. While an attempt was made to capture the ideological dimension with the social, moral and public goods incentives, it remains well beyond the scope of this thesis.[136]

[136] Andrew Phillips addresses the ideological and cultural dimensions in "How Al Qaeda Lost Iraq." A detailing understanding why the insurgent chooses to use coercion or channeling is beyond the scope of this thesis. While fully appreciating the importance of the cultural and ideological dimensions of repression, the main concern was the strategic interaction of repression and understanding why and how the population aligns in response.

C. FEASIBILITY

The feasibility of implementing a strategy consistent with the theoretical concept addresses three areas: the form of the supported government, the amount of time required, and difficultly in developing a metric to measure successes of the strategy.

After defeating the regimes in Iraq and Afghanistan, the U.S. embarked on a journey to build strong central governments, accountable to their people that are capable of providing governance. The form of government chosen to build, in a mirror image of the U.S., may not pass the test of time. With a "constitutionally" strong central government comes the requirement to have the institutions of government that are responsive to the needs of people. Therefore, it is necessary to change the perspective, build the capacity of the security forces to provide security for its people, build the capacity of the government to provide governance, and to respond to insurgent violence. In Iraq and Afghanistan, there are traditions of resisting central control (Johnson and Mason, 2008). In these societies, the traditional norms of social control emanates from local, tribal, and/or district level. In Iraq, it is the tribal leaders, and in Afghanistan, it is the council of elders or jirga.

The theoretical concept addresses grass-root efforts to build societal control by focusing on the individual and meso-level mobilization processes. In Iraq, it took a GOI/US shift in policy, to engage and empower tribal leaders.[137] To repeat the strategy in Afghanistan, it may require the U.S. to admit it is wrong to develop a strong central authority and shift to a federated system that shares power with constituent political units. Johnson and Mason identify the problems with the strong central government approach that is inconsistent with societal norms.

[137] Previously, the U.S. would not formally engage the Sunni tribes in fear of creating organizations that could possibly threaten the efforts to create a viable and legitimate Iraqi government.

> The paradigm that has formed the backbone of the international effort since 2003—extending the reach of the central government—is in fact precisely the wrong strategy. Politically and strategically, the most important level of governance in Afghanistan is neither national nor regional nor provincial. Afghan identity is rooted in the *woleswali*: the districts within each province that are typically home to a single clan or tribe. Historically, unrest has always bubbled up from this stratum. (2008)

The amount of time required to quell an insurgency and the need to measure success affect the political will to fight. Adding troops without properly employing them exacerbates the problem. The most important resource may well be time and patience. To build a government from an idea and for the people to embrace it in a feudal society like Afghanistan takes time. With time comes the requirement to show the U.S. population progress. Johnson and Mason illustrate the flawed metrics, "American effort in Afghanistan resembles the Vietnam War—with its emphasis on body counts and air strikes, its cross-border sanctuaries, and its daily tactical victories that never affected the slow and eventually decisive erosion of rural support for the counterinsurgency" (2008). Progress is not impossible to assess, but should capture the sentiment of the people with respect to their government. The Asia Foundation recently produced a survey of the Afghan people that serves as a basis for assessing the Afghan government and U.S. efforts to defeat an insurgency and provide governance for their people (Rennie, Sharma, & Sen, 2009).

D. POTENTIAL AREAS OF APPLICATION

The authors do not contend that the theory for achieving population alignment is universal. The potential areas of application will be determined through analysis of the social environment to determine if the conditions exist to channel support away from the insurgency.

The analysis begins by identifying the mobilizing structures of the relevant population. This starts with identification of the nodes of influence found in individuals, groups, and organizations. The concept has more applicability when

the nodes are decentralized. Decentralization provides multiple nodes, as a focus of the channeling efforts, as opposed to centralization, provides only one option. When decentralized, societal control is at the lowest level (tribe, jirga, district, etc.). In Afghanistan, “re-empowering the village councils of elders and restoring their community leadership is the only way to re-create the traditional check against the powerful political network of rural mullahs, who have been radicalized by the Taliban” (Johnson & Mason, 2008). This in an opportunity to conduct culturally consistent channeling that supports the development of local governance and security.

Channeling is effective in both web like and hierarchal societal control mechanisms, but consideration is required when developing a channeling strategy. In Iraq, the web-like AQI network was overlaid on an informal hierarchal tribal network. This resulted in competing nodes of influence for control of the Sunni population. Once displaced, the tribal leaders viewed an alliance with the GOI/US more favorable than submitting to AQI. In Afghanistan, the dynamics of the radicalized mullahs and the local jirgas present a similar opportunity to wrest control from the Taliban. The radical mullahs, madrassas, and Taliban, the local node of influence to provide societal control, have displaced the jirgas and tribal elders. [The tribes are] “predisposed to support the Taliban, which espouses an alien and intolerant form of Islam, and goes against the grain of traditional respect for elders and decision by consensus. Re-empowering the village coun-cils of elders and restoring their community leadership is the only way to re-create the traditional check against the powerful political network of rural mullahs, who have been radicalized by the Taliban” (Johnson & Mason, 2008). The problem becomes how to convince the people to return to traditional societal norms in the face of Taliban presence when the people and the insurgents are one in the same.

Heterogeneous insurgent supporting populations are more susceptible than homogenous populations to the channeling efforts of the counterinsurgent. Inherently, heterogeneous populations have potential differences that provide

rifts for disaggregating groups and organizations supporting the insurgents. Efforts should focus on separating the various groups and developing specific strategies for targeting the social environment that supports insurgent activity. At a minimum, the counterinsurgent must not allow his actions to unify groups and organizations in opposition to him.

> Kilcullen speaks of the need to disaggregate insurgencies: finding ways to address local grievances in Pakistan's tribal areas or along the Thai-Malay border so that they aren't mapped onto the ambitions of the global jihad. Kilcullen writes, Just as the Containment strategy was central to the Cold War, likewise a disaggregation strategy would provide a unifying strategic conception for the war—something that has been lacking to date. (Love, 2006)

As shown in the typology of repression, channeling can be used to induce disaggregation among heterogeneous groups that support the insurgent through selective incentives and empowerment or directly against the insurgent by cutting resource flows. Both increase the cost of control for the insurgent. This requires the insurgent to compete against the counterinsurgent to co-op certain groups and costs the insurgent more should he decide to use channeling. When the insurgent's resource flows are compromised, he is more likely to use a more cost-efficient method of population control: coercion.

There are numerous benefits to using channeling. The disaggregation achieved through channeling assists building counterinsurgent coalitions. It provides additional security forces and increased intelligence to make discriminate coercion legitimate and precise. Channeling amplifies the resources advantage of the counterinsurgent and likely compels the insurgent to resort to coercion for population control. Lastly, it is likely the insurgent will loose his legitimacy over time and the population will align with the counterinsurgent.

In Iraq, AQI created the opportunity for the U.S. to channel the tribes effectively. However, understanding the dynamics aligning the population with the insurgents allows the counterinsurgent to operationalize channeling systemically. Channeling against the insurgent is used to disrupt the flow of

resources and to induce coercion. Channeling the population includes positive incentives, material and economic, for meso-level leaders to increase their influence on the population.

Channeling is not always the ideal repression tactic to control populations. Channeling must be consistent to achieve the desired effects. Channeling from a negotiating position of strength is consistent; however, channeling from a negotiating position of weakness is a concession. Concessions[138] can increase mobilization by increasing the extent of cognitive liberation (Snow, Rochford, Worden, & Beford, 1986, p. 466). Namely, the insurgent may interpret concessions as signals that its use of coercion will go unchallenged[139] An example of a concession made by the GOI/US would be the agreements reached with insurgent leaders in Fallujah in April 2004. Insurgent leaders were able to negotiate an end to the siege of Fallujah prematurely ending GOI/US offensive operations to clear the city. The embolden Sunni insurgency believed that they could defeat the GOI/US and this perception led to increased support throughout the Anbar. In contrast, the channeling used to empower and influence the Anbar tribal leaders in 2006 came from an advantageous position. The tribal leaders needed support to reestablish their traditional role in the tribes and the GOI/US support was well received and achieved the intended result of displacing AQI.

[138] Concessions involve low-level accommodations (procedural) that reflect the government's attempt to negotiate with designated leaders of the opposition and high-level accommodations (substantive) are attempts to co-opt the challenging group leaders and their political platforms (Rasler, 1996; Gamson, 1990).

[139] Value expectancy models argue that when people be-come convinced that their participation in collective action is likely to achieve a collective good, they are more likely to dissent. Government concessions enhance this perception and increase the probability that people will join in mass actions (Rasler, 1996, p. 145).

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